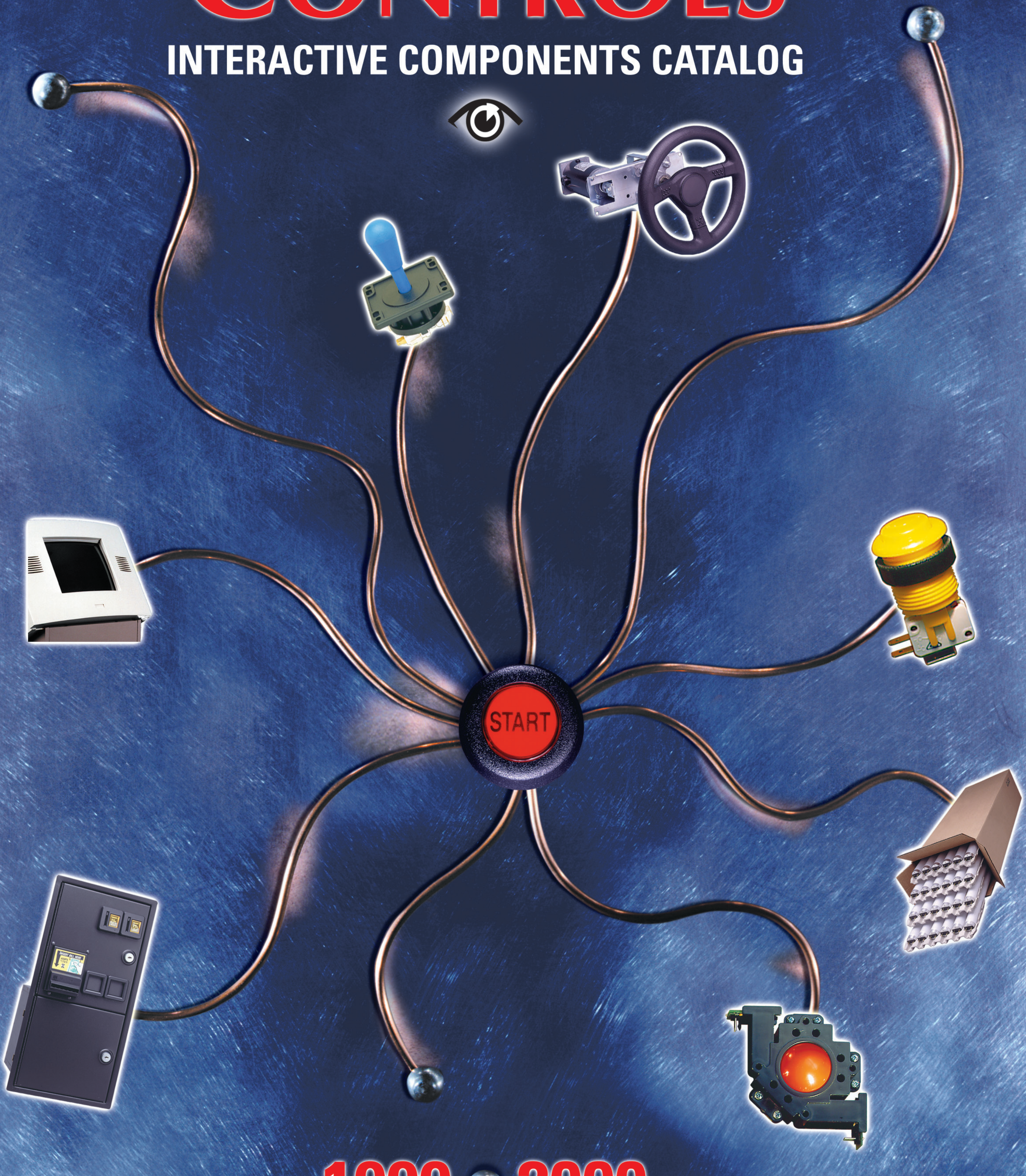
HAPP CONTROLS

INTERACTIVE COMPONENTS CATALOG



1999 • 2000

OUR MISSION

QUALITY
We test and retest the products we assemble and sell to ensure the highest levels of quality. We constantly strive to improve the quality of our products and service.

SERVICE
We ship quickly, and complete from our Chicago or Las Vegas distribution centers. Our sales staff will gladly help you in English or in Spanish. Customer satisfaction is our first priority.

VALUE
Competitive prices, everyday, and special low prices for volume buyers, or export customers. We will not be undersold.

INNOVATION
Our engineering team is constantly developing new products which lead the industries we serve. Cost reduction and product improvements are our goals.

PATENTS COPYRIGHTS, TRADEMARKS
Happ Controls products are protected by United States and Foreign Patents (Granted and Pending). Happ Controls maintains an aggressive policy against infringement of patents, copyrights, or trademarks.

Happ Controls reserves the right to improve our products without prior notice.

Happ Controls is dedicated to the proposition that our customers are our most valuable resource - if we ever fail to satisfy you, in any way, please call me personally.

Thank you for your business.

Frank Happ, President

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QUICK INDEX

ORDERING INFORMATION

ORDER BY MAIL, PHONE OR FAX

Use Happ Controls part numbers and descriptions as shown in this catalog.

Use your company name, your name, address, zip code, phone number and fax number (including area code). Use your Happ Controls customer number and your Purchase Order Number, if desired.

If you wish to obtain up-to-date information on current products or new product introductions, visit our interactive web site: **http://www.happcontrols.com**

TERMS

Our terms are C.O.D., Visa, Master Card, American Express Cards or Net 30 days (with approved credit). See page 102 for credit application.

When sending money in advance of shipping, please include money for shipping charges and your state sales tax, applicable in CA, CO, FL, GA, IL, IN, KY, MI, MN, NV, NY, OK, PA, SC, TN, TX, VA

All prices are net F.O.B. our docks, unless otherwise specified.

MINIMUM ORDER

Is $25.00 plus shipping charge and your state sales tax, if applicable (see list above). All prices are in U.S. dollars and subject to change without prior notice.

WIRE TRANSFER INFORMATION

Send wire transfer of funds to:
American National Bank & Trust Co. of Chicago
Chicago, Illinois, 60690 U.S.A.
ABA Number 071000770

Credit to: Happ Controls, Inc.
Account Number: 20025629

1. Please include your company name and customer number for proper identification of sender, plus invoice number(s).
2. Please fax Happ Controls informing us of the date of your wire transfer, the amount of the transfer, and the invoices of orders you are paying. (Our Accounting Department fax number is 847-981-2902) Send it to the attention of **Accounts Receivable**.

RETURNS FOR CREDIT

Call, write, or fax Happ Controls for return authorization.
Credit for returns will be granted subject to our inspection.
A restocking charge will be applicable.
Call and receive an RMA number from our customer service department.

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ILLUMINATED PUSHBUTTONS

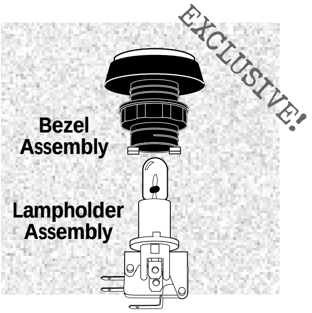
All Happ Illuminated Pushbuttons:

- Made with highest quality materials
- Fits wood or metal control panels
- Polycarbonate lens cap for optical clarity
- Heat resistant plastic
- Microswitch reliability tested to 10,000,000 cycles
- Wedge base, T3 1/4 14 V DC #161 incandescent lamp standard
- Custom legend lettering designs and artwork available at nominal charge

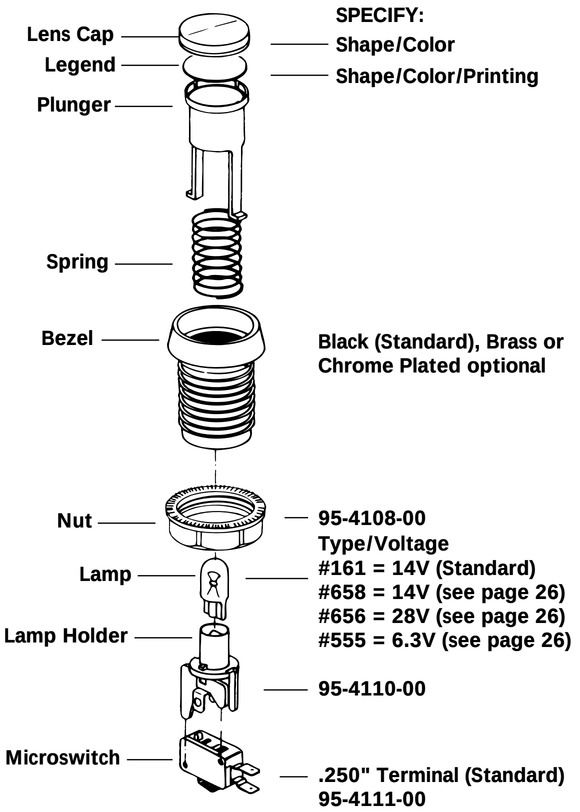
Available Options:

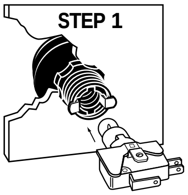
- Long life #658 14 V DC, lamp optional 15,000 hours
- #555 6 V DC, 28 V DC lamps and LED optional
- Chrome or brass plating available on bezel at nominal charge
- Can be used as lighted indicators with optional indicator washer (plunger will not depress)
- Custom printing on legends available at nominal charge
- For illuminated pushbutton accessories, see page 11 & 12:
  - Button Plugs
  - Illuminated pushbutton covers
  - Illuminated pushbutton wrench
  - LED for illuminated pushbuttons

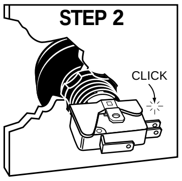
Lamp Assembly Installation
Happ Controls has developed the exclusive "Posi-Snap" design to assure a positive fit between the button bezel and the lampholder assembly. Simply insert lampholder assembly into button bezel (step 1), then rock the lampholder assembly to one side while pushing forward into the button body (step 2), then rock the lampholder assembly in the opposite direction until it *'clicks'* in place (step 3).

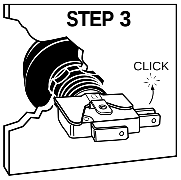

EXCLUSIVE!
Bezel Assembly
Lampholder Assembly

IDENTIFICATION KEY

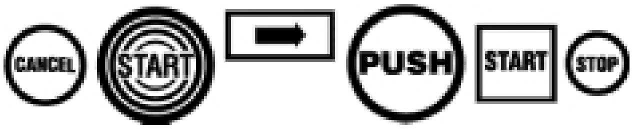

Lens Cap
Legend
Plunger
Spring
Bezel
Nut
Lamp
Lamp Holder
Microswitch
SPECIFY:
Shape/Color
Shape/Color/Printing
Black (Standard), Brass or Chrome Plated optional
95-4108-00
Type/Voltage
#161 = 14V (Standard)
#658 = 14V (see page 26)
#656 = 28V (see page 26)
#555 = 6.3V (see page 26)
95-4110-00
.250" Terminal (Standard)
95-4111-00



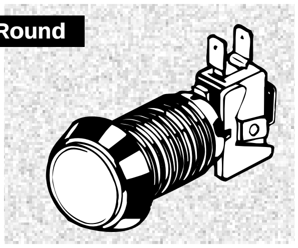

STEP 2
CLICK


STEP 3
CLICK

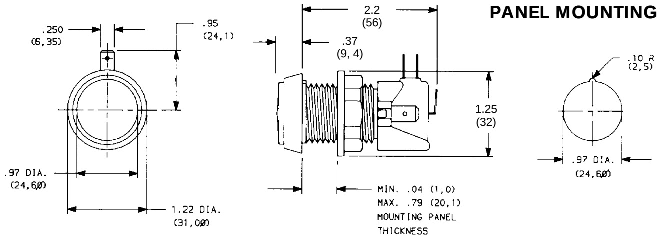
SAMPLES OF CUSTOM ARTWORK


CANCEL
START
PUSH
START
STOP

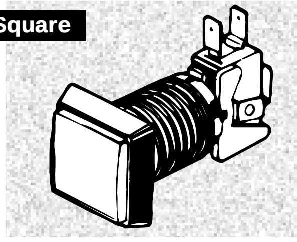
Small Round



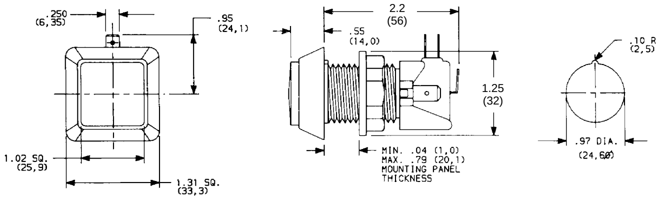
PANEL MOUNTING


.250 (6,35)
.95 (24,1)
2.2 (56)
.37 (9,4)
1.25 (32)
.10 R (2,5)
.97 DIA. (24,60)
1.22 DIA. (31,00)
MIN. .04 (1,0) MAX. .79 (20,1) MOUNTING PANEL THICKNESS
.97 DIA. (24,60)

Small Square



PANEL MOUNTING


.250 (6,35)
.95 (24,1)
2.2 (56)
.55 (14,0)
1.25 (32)
.10 R (2,5)
1.02 SQ. (25,9)
1.31 SQ. (33,3)
MIN. .04 (1,0) MAX. .79 (20,1) MOUNTING PANEL THICKNESS
.97 DIA. (24,60)

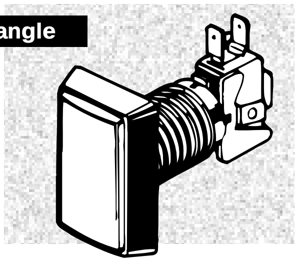
COLOR CODE: X = Color

0 = Red
1 = White
2 = Blue
3 = Green
5 = Yellow
7 = Amber (Orange)

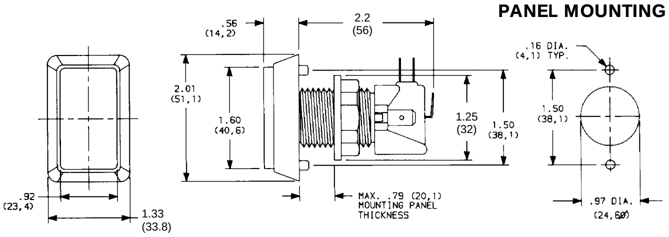
Part Number		Price per ea.	100+
54-0004-2X	Small Round, 14V #161 lamp, .250 micro.	4.95	4.50
54-0004-4X	Small Square, 14V #161 lamp, .250 micro.	4.95	4.50

ILLUMINATED PUSHBUTTONS

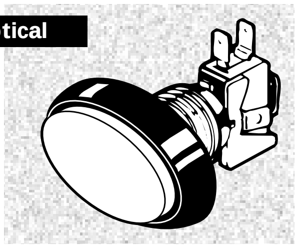
Rectangle



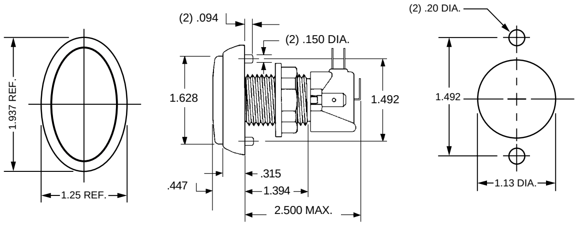
PANEL MOUNTING


.56
(14,2)
2.2
(56)
.16 DIA.
(4,1) TYP.
2.01
(51,1)
1.60
(40,6)
1.25
(32)
1.50
(38,1)
1.50
(38,1)
.92
(23,4)
1.33
(33.8)
MAX. .79 (20,1)
MOUNTING PANEL
THICKNESS
.97 DIA.
(24,60)

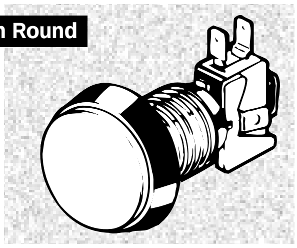
Elliptical



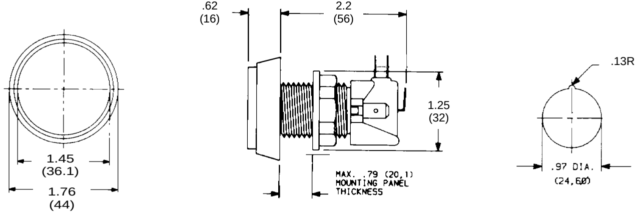
PANEL MOUNTING


(2) .20 DIA.
(2) .094
(2) .150 DIA.
1.937 REF.
1.628
1.492
1.492
.447
.315
1.394
1.25 REF.
2.500 MAX.
1.13 DIA.

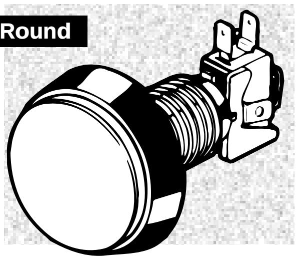
Medium Round



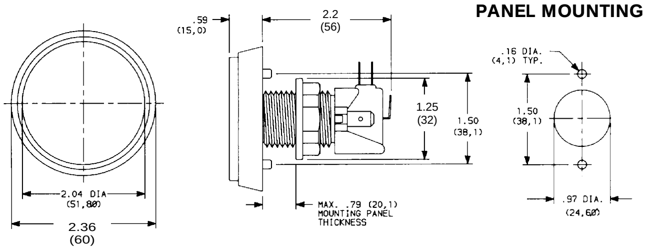
PANEL MOUNTING


.62
(16)
2.2
(56)
.13R
1.25
(32)
1.45
(36.1)
1.76
(44)
MAX. .79 (20,1)
MOUNTING PANEL
THICKNESS
.97 DIA.
(24,60)

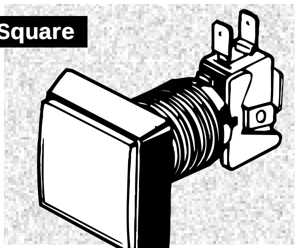
Large Round



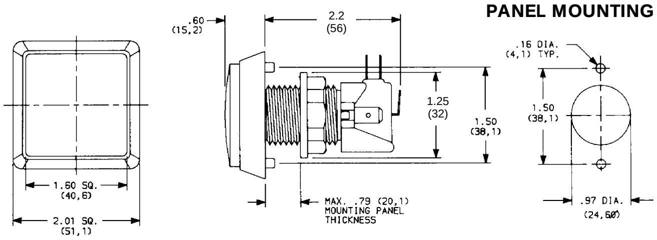
PANEL MOUNTING


.59
(15,0)
2.2
(56)
.16 DIA.
(4,1) TYP.
1.25
(32)
1.50
(38,1)
1.50
(38,1)
2.04 DIA
(51,80)
2.36
(60)
MAX. .79 (20,1)
MOUNTING PANEL
THICKNESS
.97 DIA.
(24,60)

Large Square

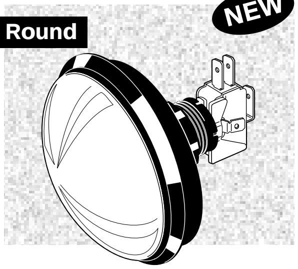


PANEL MOUNTING

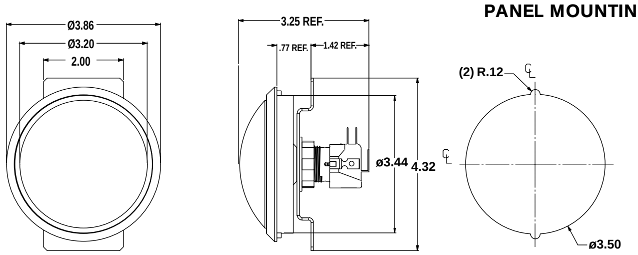

.60
(15,2)
2.2
(56)
.16 DIA.
(4,1) TYP.
1.25
(32)
1.50
(38,1)
1.50
(38,1)
1.60 SQ.
(40,6)
2.01 SQ.
(51,1)
MAX. .79 (20,1)
MOUNTING PANEL
THICKNESS
.97 DIA.
(24,60)

Jumbo Round

NEW



PANEL MOUNTING


Ø3.86
Ø3.20
2.00
3.25 REF.
.77 REF.
1.42 REF.
(2) R.12
ø3.44
4.32
ø3.50

COLOR CODE: X = Color

0 = Red
1 = White
2 = Blue
3 = Green
5 = Yellow
7 = Amber
(Orange)

Part Number	Price per ea.	1-99	100+
54-0004-5X	Rectangular, 14V #161 lamp, .250 micro.	4.95	4.50
59-6004-8X	Elliptical, 14V #161 lamp, .250 micro.	5.50	4.95
54-0004-6X	Medium Round, 14V #161 lamp, .250 micro.	5.50	4.95
54-0004-1X	Large Round, 14V #161 lamp, .250 micro.	5.50	4.95
54-0004-3X	Large Square, 14V #161 lamp, .250 micro.	5.50	4.95
95-4002-XX	Jumbo Button, 14V #161 Lamp, .250 micro.	22.95	21.50

DUAL & INCLINED ILLUMINATED PUSHBUTTONS

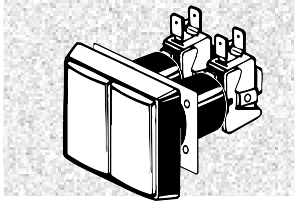
Available Options:

- Unique design to enhance control panel look
- Provides dual function capability in limited space
- Mounting hardware included for Dual Pushbuttons (M-3 Flat Head 1" Screws)
- Fits wood or metal control panels
- Microswitch reliability tested to 10,000,000 cycles
- Fitted as standard with T-3^{1}/4 incandescent #161 14v DC bulb
- Custom printing on legends available at nominal charge
- See page 12 for LED

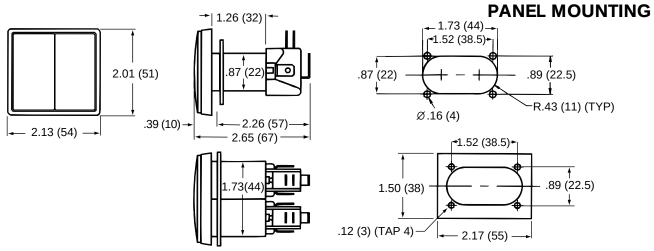
COLOR CODE

X = Color
0 = Red
1 = White
2 = Blue
3 = Green
5 = Yellow
7 = Amber (Orange)

Large Square Standard

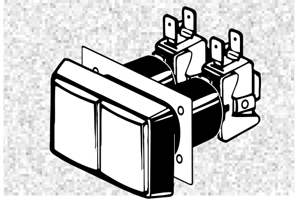


PANEL MOUNTING

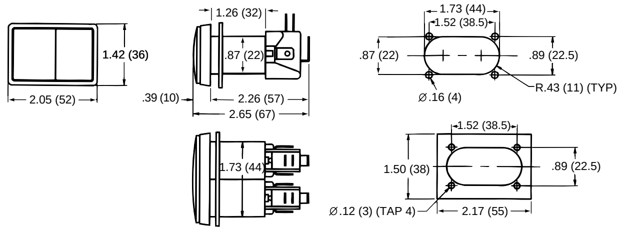


1.26 (32)
2.01 (51)
.87 (22)
2.13 (54)
.39 (10)
2.26 (57)
2.65 (67)
1.73(44)
1.73 (44)
1.52 (38.5)
.87 (22)
.89 (22.5)
Ø.16 (4)
R.43 (11) (TYP)
1.52 (38.5)
1.50 (38)
.89 (22.5)
.12 (3) (TAP 4)
2.17 (55)

Rectangle Standard

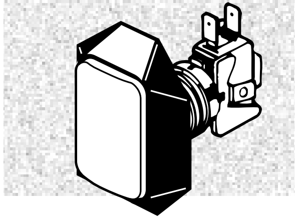


PANEL MOUNTING

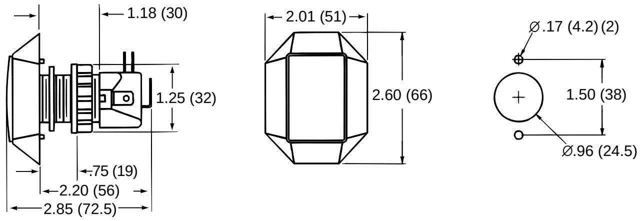


1.26 (32)
1.42 (36)
.87 (22)
2.05 (52)
.39 (10)
2.26 (57)
2.65 (67)
1.73 (44)
1.73 (44)
1.52 (38.5)
.87 (22)
.89 (22.5)
Ø.16 (4)
R.43 (11) (TYP)
1.52 (38.5)
1.50 (38)
.89 (22.5)
Ø.12 (3) (TAP 4)
2.17 (55)

Rectangle - Octagonal

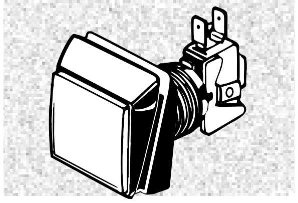


PANEL MOUNTING

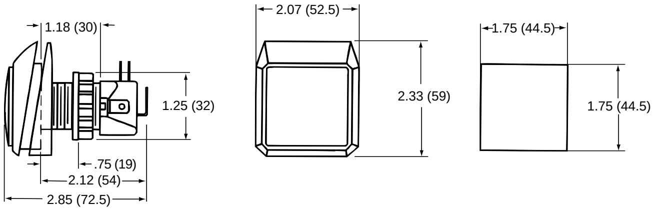


1.18 (30)
1.25 (32)
.75 (19)
2.20 (56)
2.85 (72.5)
2.01 (51)
2.60 (66)
Ø.17 (4.2) (2)
1.50 (38)
Ø.96 (24.5)

Large Square

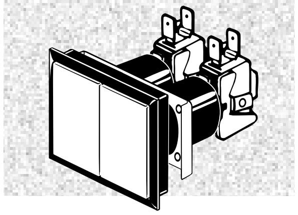


PANEL MOUNTING

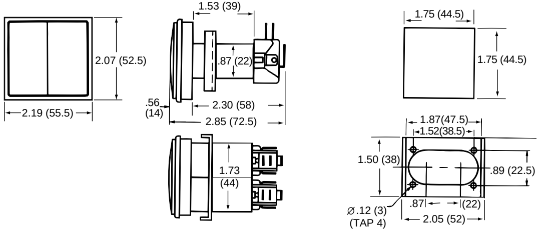


1.18 (30)
1.25 (32)
.75 (19)
2.12 (54)
2.85 (72.5)
2.07 (52.5)
2.33 (59)
1.75 (44.5)
1.75 (44.5)

Large Square Low Profile

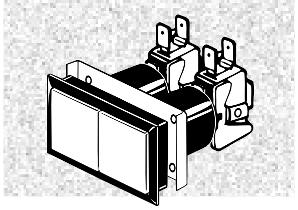


PANEL MOUNTING

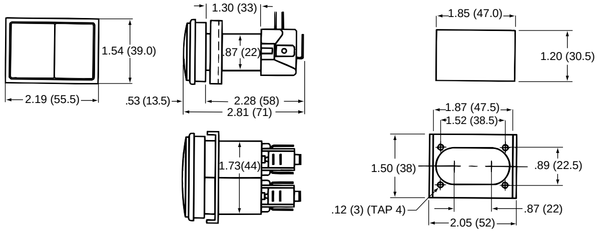


1.53 (39)
2.07 (52.5)
.87 (22)
2.19 (55.5)
.56 (14)
2.30 (58)
2.85 (72.5)
1.73 (44)
1.75 (44.5)
1.75 (44.5)
1.87(47.5)
1.52(38.5)
1.50 (38)
.89 (22.5)
Ø.12 (3) (TAP 4)
.87
(22)
2.05 (52)

Rectangle Low



PANEL MOUNTING



1.30 (33)
1.54 (39.0)
.87 (22)
2.19 (55.5)
.53 (13.5)
2.28 (58)
2.81 (71)
1.73(44)
1.85 (47.0)
1.20 (30.5)
1.87 (47.5)
1.52 (38.5)
1.50 (38)
.89 (22.5)
.12 (3) (TAP 4)
.87 (22)
2.05 (52)

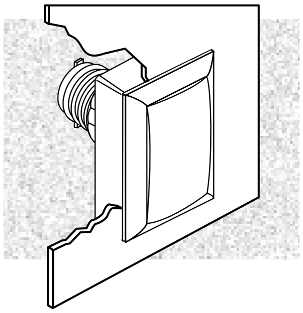
Part Number	Price per ea.	1-99	100+
54-0004-D3XX	Dual IPB, Large Square Standard	9.50	8.55
54-0004-D5XX	Dual IPB, Rectangle Standard	9.50	8.55
59-0004-59XX	Rectangle Octagonal IPB	5.00	4.75

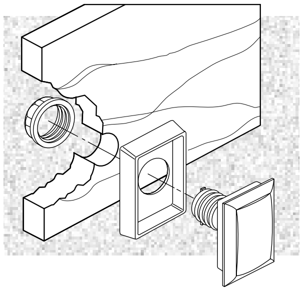
Part Number	Price per ea.	1-99	100+
57-0004-3XI	Large Square Inclined IPB	5.50	4.95
57-0004-D3XX	Dual IPB, Large Square Low Profile	9.50	8.55
57-0004-D5XX	Dual IPB, Rectangle Low Profile	9.50	8.55

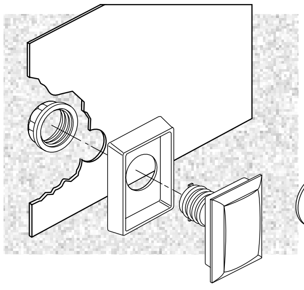
LOW PROFILE ILLUMINATED PUSHBUTTONS

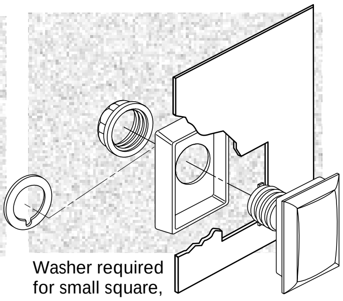
- Unique design provides “flat” profile to enhance playability
- Fits wood or metal control panels
- Microswitch reliability tested to 10,000,000 cycles
- Fitted standard with #161, 14V bulb
- Custom printing on legends available at nominal charge
- Can be used as lighted indicators with optional indicator washer (plunger will not depress)
- See page 12 for LED

Low Profile Mounting Options







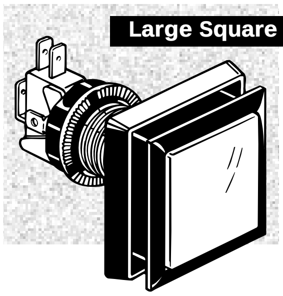


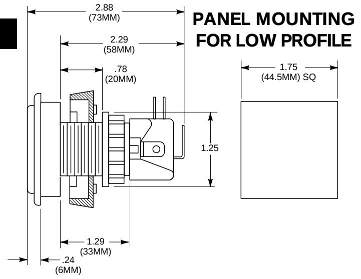
Washer required for small square, small round and medium round

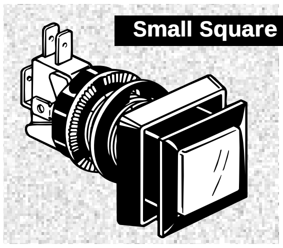
COLOR CODE: X = Color

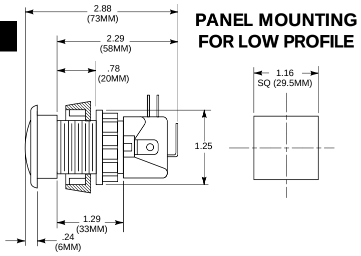
0 = Red
1 = White
2 = Blue
3 = Green
5 = Yellow
7 = Amber (Orange)

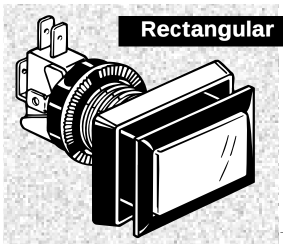
Part Number	Price per ea.	1-99	100+
57-0004-3X	Large Square Low Profile 14V #161 lamp, .250 micro.	5.50	4.95
57-0004-4X	Small Square Low Profile 14V #161 lamp, .250 micro.	5.50	4.95
57-0004-5X	Rectangular Low Profile 14V #161 lamp, .250 micro.	5.50	4.95
57-0004-2X	Small Round Low Profile 14V #161 lamp, .250 micro.	5.50	4.95
57-0004-6X	Medium Round Low Profile 14V #161 lamp, .250 micro.	5.50	4.95
71-0004-TX	Triangle Low Profile 14V #161 Lamp, .250 micro.	5.50	4.95

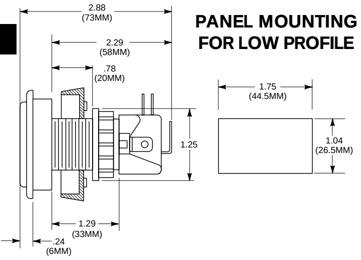

Large Square

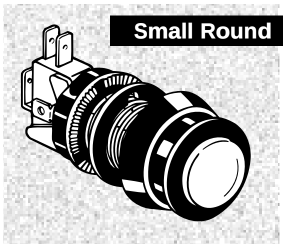

2.88 (73MM)
2.29 (58MM)
.78 (20MM)
1.25
1.29 (33MM)
.24 (6MM)
PANEL MOUNTING FOR LOW PROFILE
1.75 (44.5MM) SQ

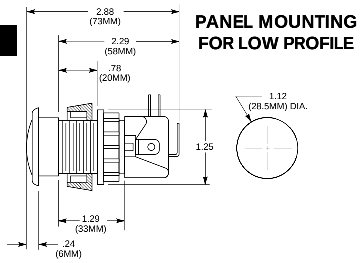

Small Square

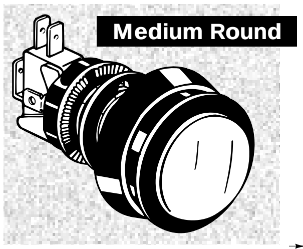

2.88 (73MM)
2.29 (58MM)
.78 (20MM)
1.25
1.29 (33MM)
.24 (6MM)
PANEL MOUNTING FOR LOW PROFILE
1.16 SQ (29.5MM)

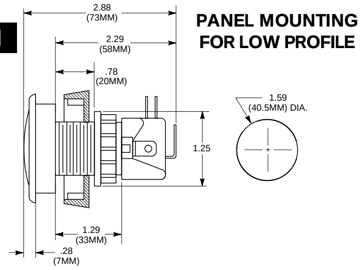

Rectangular

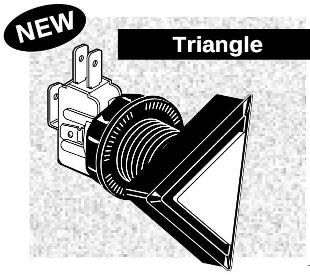

2.88 (73MM)
2.29 (58MM)
.78 (20MM)
1.25
1.29 (33MM)
.24 (6MM)
PANEL MOUNTING FOR LOW PROFILE
1.75 (44.5MM)
1.04 (26.5MM)

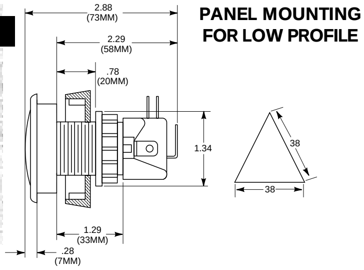

Small Round


2.88 (73MM)
2.29 (58MM)
.78 (20MM)
1.25
1.29 (33MM)
.24 (6MM)
PANEL MOUNTING FOR LOW PROFILE
1.12 (28.5MM) DIA.


Medium Round


2.88 (73MM)
2.29 (58MM)
.78 (20MM)
1.25
1.29 (33MM)
.28 (7MM)
PANEL MOUNTING FOR LOW PROFILE
1.59 (40.5MM) DIA.

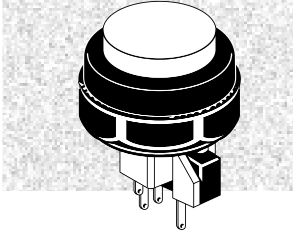

NEW
Triangle

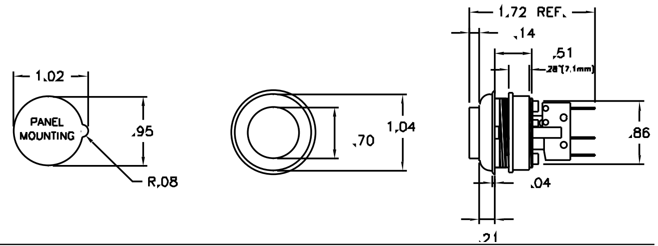

2.88 (73MM)
2.29 (58MM)
.78 (20MM)
1.34
1.29 (33MM)
.28 (7MM)
PANEL MOUNTING FOR LOW PROFILE
38
38

POKER/VLT PUSHBUTTONS

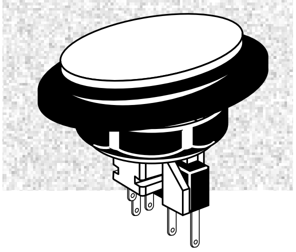
- Designed to retrofit all existing VLT (Video Lottery Terminals) and draw poker applications using .87"/22mm square mounting hole
- Designed to resist spills and sticking
- Designed for high reliability and long life, tested to 10 million+ cycles
- Small size, low profile, provides maximum player comfort
- Unique design, with separable lamp/switch holder, allows easy lamp changing while holding switch very securely
- Full .020"/.5mm Thickness on lamp terminals holds lamp connectors securely
- Contacts for lamp base are two-legged to assure reliable contact with lamp
- .062" ø grounding terminal is optional
- Gold contact subminiature .110 terminals microswitch fitted as standard
- 6.3V, T-1^{3}/4 wedge base lamp is standard
- 14V & 28V lamps optional
- White legend and clear lens cap fitted as standard
- Additional colors of legend and lens cap are available
- Custom legend lettering designs and artwork available at nominal charge
- Translucent color bezel available (57-8000-XX)
- See page 12 for VLT wrench VLT pushbutton covers
- See page 12 for LEDs for Pushbuttons.

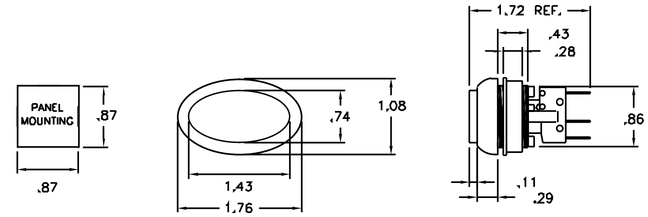
Small Round



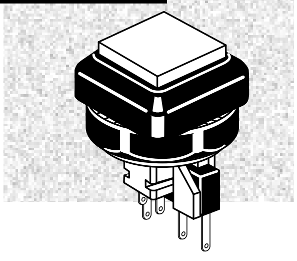

1.02
PANEL MOUNTING
.95
R.08
.70
1.04
1.72 REF.
.14
.51
.28 (7.1mm)
.86
.04
.21

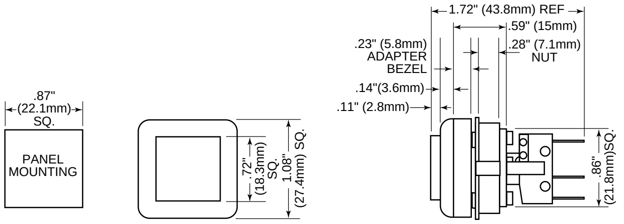
Elliptical



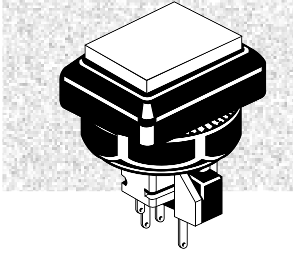

PANEL MOUNTING
.87
.87
.74
1.08
1.43
1.76
1.72 REF.
.43
.28
.86
.11
.29

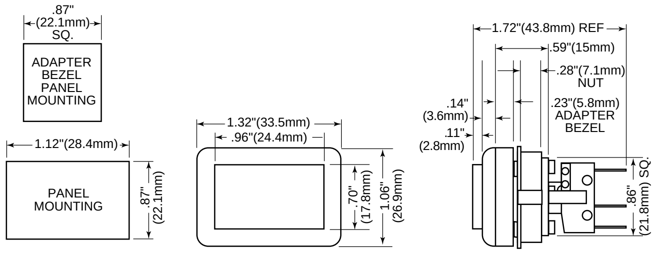
Small Square



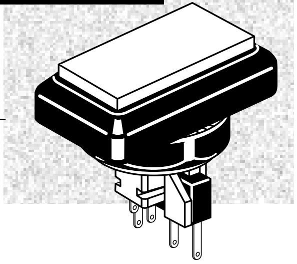

.87" (22.1mm) SQ.
PANEL MOUNTING
.72" (18.3mm) SQ.
1.08" (27.4mm) SQ.
1.72" (43.8mm) REF
.59" (15mm)
.23" (5.8mm) ADAPTER BEZEL
.28" (7.1mm) NUT
.14"(3.6mm)
.11" (2.8mm)
.86" (21.8mm)SQ.

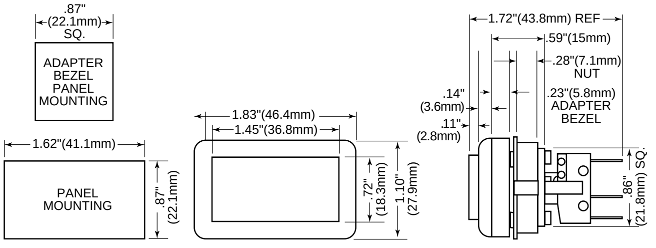
Medium Rectangle




.87" (22.1mm) SQ.
ADAPTER BEZEL PANEL MOUNTING
1.12"(28.4mm)
PANEL MOUNTING
.87" (22.1mm)
1.32"(33.5mm)
.96"(24.4mm)
.70" (17.8mm)
1.06" (26.9mm)
1.72"(43.8mm) REF
.59"(15mm)
.28"(7.1mm) NUT
.14" (3.6mm)
.23"(5.8mm) ADAPTER BEZEL
.11" (2.8mm)
.86" (21.8mm) SQ.

Rectangle




.87" (22.1mm) SQ.
ADAPTER BEZEL PANEL MOUNTING
1.62"(41.1mm)
PANEL MOUNTING
.87" (22.1mm)
1.83"(46.4mm)
1.45"(36.8mm)
.72" (18.3mm)
1.10" (27.9mm)
1.72"(43.8mm) REF
.59"(15mm)
.28"(7.1mm) NUT
.14" (3.6mm)
.23"(5.8mm) ADAPTER BEZEL
.11" (2.8mm)
.86" (21.8mm) SQ.

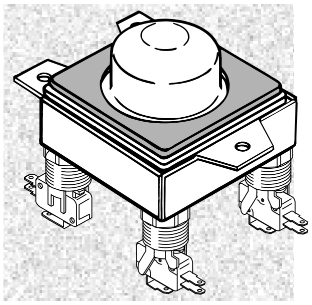
COLOR CODE: X = Color

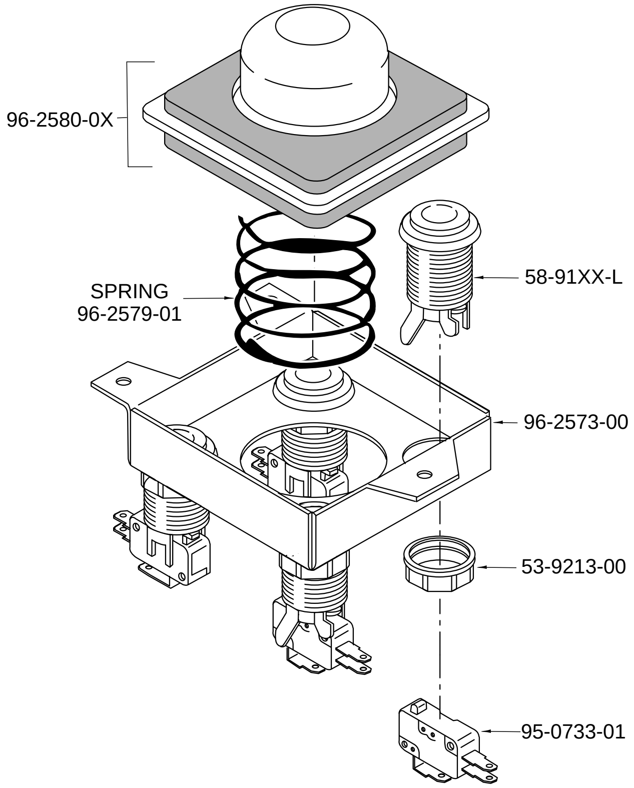
0 = Red	5 = Yellow
1 = White	7 = Amber (Orange)
2 = Blue	
3 = Green	

Part Number	Price per ea.	1-99	100+
57-2000-3X	Small Round VLT Pushbutton	7.50	6.95
57-2000-4X	Small Square VLT Pushbutton	7.50	6.95
57-2000-5X	Rectangular VLT Pushbutton	7.50	6.95
57-2000-6X	Medium Rectangle VLT Pushbutton	7.50	6.95
57-2000-8X	Elliptical VLT Pushbutton	7.50	6.95

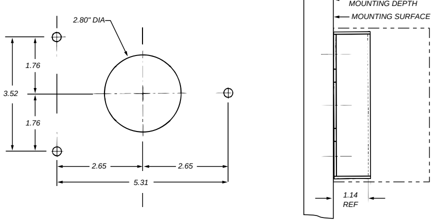
MEGA BUTTON ASSEMBLY

- Translucent polycarbonate pushbutton
- Plastic covered spring
- 14 gauge steel base
- Additional colors can be produced upon request
- Various colors available
- Custom artwork/printing inside button now available




96-2580-0X
SPRING
96-2579-01
58-91XX-L
96-2573-00
53-9213-00
95-0733-01

PANEL MOUNTING


2.80" DIA
1.76
3.52
1.76
2.65
2.65
5.31
3.50 MIN.
MOUNTING DEPTH
MOUNTING SURFACE
1.14
REF

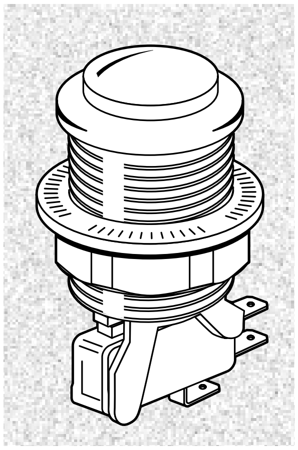
COLOR CODE: X = Color

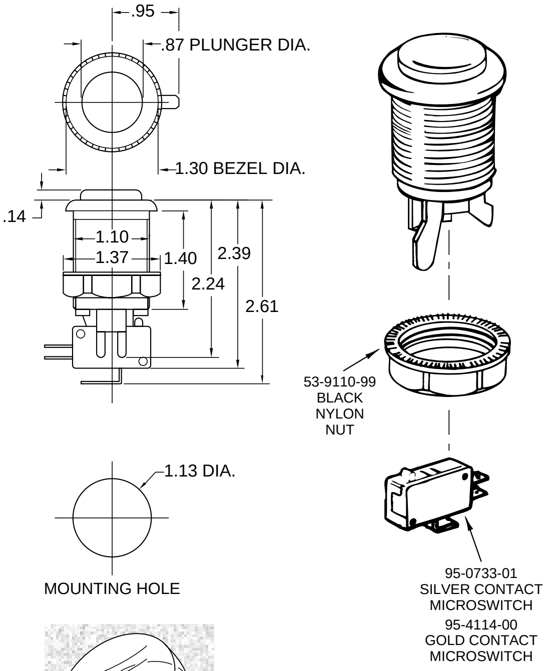
0 = Red
1 = White
2 = Blue
3 = Green
4 = Purple
5 = Yellow
7 = Orange

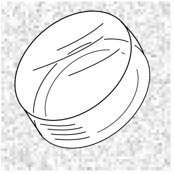
Part Number		Price per ea. 1-24	25+
53-870X-00	Mega Button	26.00	23.50

NEW COMPETITION PUSHBUTTON

- Unique, convex design for increased speed and accuracy
- New longer design – easier to use with $^3/_8$" wood control panels with Lexan
- Mounts into wood or metal control panels, $1^1/_8$" hole
- Microswitch reliability – tested to 10,000,000 cycles.
- Gold contact microswitch available
- Durable Nylon Plastic




.95
.87 PLUNGER DIA.
1.30 BEZEL DIA.
.14
1.10
1.37
1.40
2.39
2.24
2.61
1.13 DIA.
MOUNTING HOLE
53-9110-99
BLACK
NYLON
NUT
95-0733-01
SILVER CONTACT
MICROSWITCH
95-4114-00
GOLD CONTACT
MICROSWITCH



54-1006-00
Protective Cover

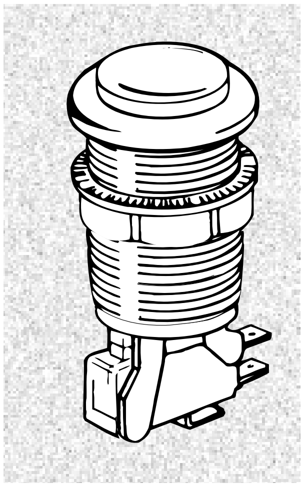
COLOR CODE: XX = Color

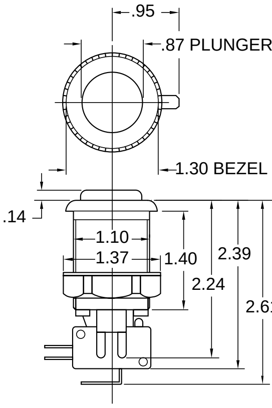
10 = Red
11 = White
12 = Blue
13 = Green
14 = Purple
15 = Yellow
16 = Black

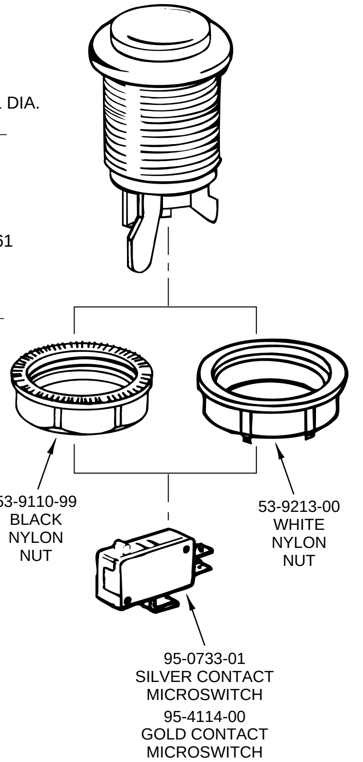
Part Number	Price per ea.	1-99	100+
58-96XX-L	Competition Pushbutton	1.35	1.25
54-1006-00	Protective Cover for Competition Pushbutton	1.95	1.85

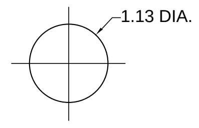
PUSHBUTTON WITH HORIZONTAL MICROSWITCH

- Fits wood or metal control panels
- New longer design: Easier to use within 3/4" wood control panels w/Lexan
- Microswitch reliability tested to 10,000,000 cycle
- Durable NYLON material
- Pushbutton mounts in 1 1/8" hole
- Protective cover also available

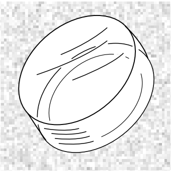



.95
.87 PLUNGER DIA.
1.30 BEZEL DIA.
.14
1.10
1.37
1.40
2.39
2.24
2.61


53-9110-99
BLACK
NYLON
NUT
53-9213-00
WHITE
NYLON
NUT
95-0733-01
SILVER CONTACT
MICROSWITCH
95-4114-00
GOLD CONTACT
MICROSWITCH

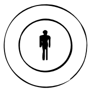


MOUNTING HOLE

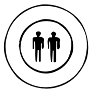


54-1006-00
Protective Cover

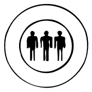
1Player
58-9111-L1PLY



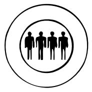
2Player
58-9111-L2PLY



3Player
58-9111-L3PLY



4Player
58-9111-L4PLY



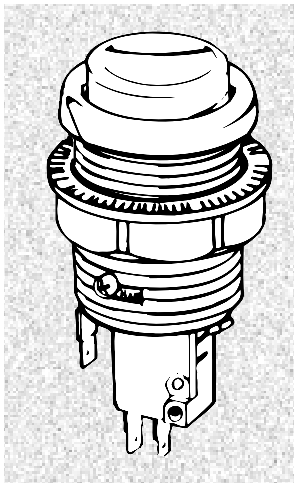
COLOR CODE/PLAYER SELECTION

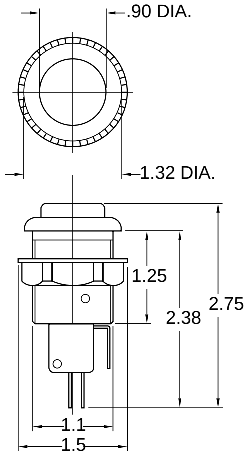
58-9100-L = Red
58-9111-L = White
58-9122-L = Blue
58-9133-L = Green
58-9144-L = Purple
58-9155-L = Yellow
58-9166-L = Black
58-9177-L = Orange
58-9111-L1PLY = 1 Player, White
58-9111-L2PLY = 2 Player, White
58-9111-L3PLY = 3 Player, White
58-9111-L4PLY = 4 Player, White

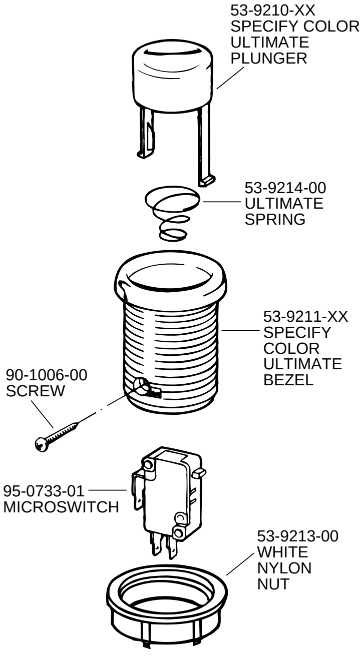
Part Number	Price per ea.	1-99	100+
58-91XX-L	Pushbutton with Horizontal Microswitch	1.45	1.35
58-9111-LXPLY	1 – 4 Player Pushbutton with Horizontal Microswitch	1.55	1.40
54-1006-00	Protective Cover for Horizontal Pushbutton	1.95	1.85

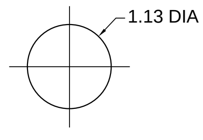
ULTIMATE PUSHBUTTON WITH MICROSWITCH

- 100% NYLON construction
- Fits all thickness of control panels from .060 (1/16") metal to .750 (3/4") wood
- Microswitch reliability tested to 10,000,000 cycle **GOLD contact microswitch available**
- Sideways switch actuation – fast and responsive
- Microswitch is held firmly in place via exclusive one screw design
- Pushbutton mounts in 1 1/8" hole
- Protective cover also available




.90 DIA.
1.32 DIA.
1.25
2.38
2.75
1.1
1.5


53-9210-XX
SPECIFY COLOR
ULTIMATE
PLUNGER
53-9214-00
ULTIMATE
SPRING
53-9211-XX
SPECIFY
COLOR
ULTIMATE
BEZEL
90-1006-00
SCREW
95-0733-01
MICROSWITCH
53-9213-00
WHITE
NYLON
NUT

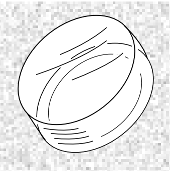


MOUNTING HOLE

COLOR CODE

XX = Color

10 = Red
11 = White
12 = Blue
13 = Green
15 = Yellow
16 = Black
18 = Purple

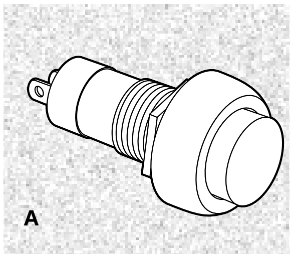


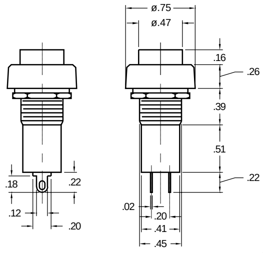
54-1006-00
Protective Cover

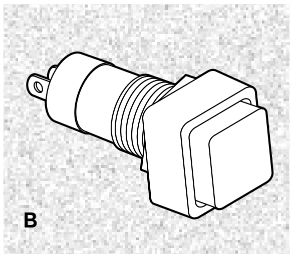
Part Number	Price per ea.	1-99	100+
53-9200-XX	Ultimate Pushbutton & Switch	1.35	1.25
54-1006-00	Protective Cover f/Ultimate Pushbutton	1.95	1.85

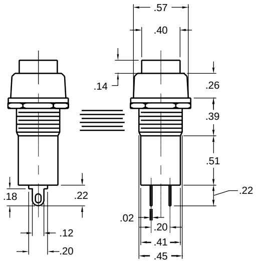
MINIATURE MOMENTARY CONTACT PUSHBUTTONS

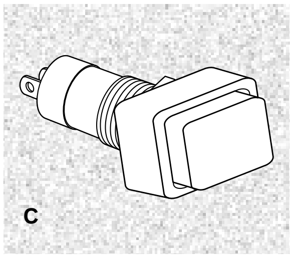
- Small size to allow use in numerous applications
- Monetary Contact

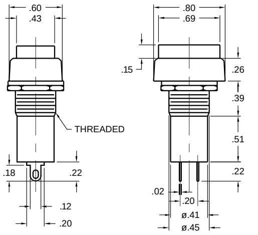

A

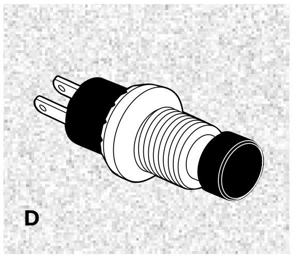

ø.75
ø.47
.16
.26
.39
.51
.22
.18
.22
.12
.20
.02
.20
.41
.45
A

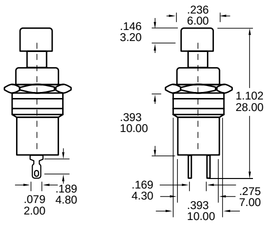

B


.57
.40
.14
.26
.39
.51
.22
.18
.22
.12
.20
.02
.20
.41
.45
B


C


.60
.43
.80
.69
.15
.26
.39
THREADED
.51
.22
.18
.22
.12
.20
.02
.20
ø.41
ø.45
C

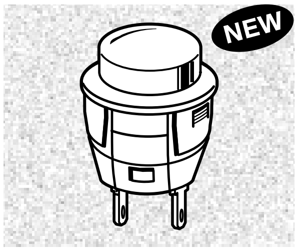

D


.236
6.00
.146
3.20
1.102
28.00
.393
10.00
.169
4.30
.189
4.80
.079
2.00
.393
10.00
.275
7.00
D

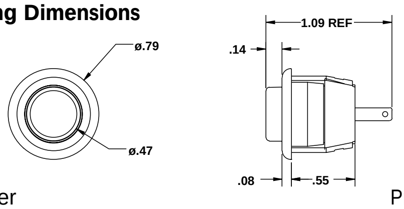
Part Number	Type		Price per ea. 1-99	100+
49-0577-00	A	Miniature Round Pushbutton, Black Bezel, Red Center	.65	.60
49-0577-05	A	Miniature Round Pushbutton, Black Bezel, Yellow Center	.65	.60
49-0578-00	B	Miniature Square Pushbutton, Black Bezel, Red Center	.65	.60
49-0578-11	B	Miniature Square Pushbutton Black Bezel, White Center	.65	.60
49-3037-00	C	Miniature Rectangle Pushbutton Black Bezel, Red Center	.75	.70
95-0011-00	D	Mini-Round Pushbutton, Black	.90	.85

MINI-MOMENTARY PUSHBUTTON

- Small size allows use in many applications
- Momentary contact



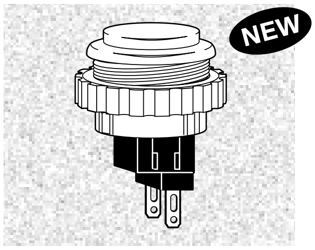
Mounting Dimensions


ø.79
ø.47
1.09 REF
.14
.08
.55

Part Number		Price per ea.
61-1200-10	Mini-Momentary Pushbutton	2.25

MOMENTARY CONTACT PUSHBUTTON

- Small pushbutton with shallow mounting depth
- .110 quick connect terminals
- Momentary contact switch
- Switch life: 1,000,000 cycles
- Switch rating: 12vdc 0.1A, 5v 10mA

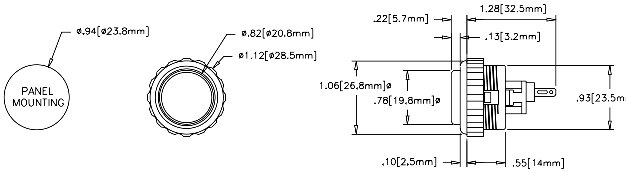


COLOR CODE

XX = Color

10 = Red
12 = Blue
13 = Green
15 = Yellow
17 = Orange

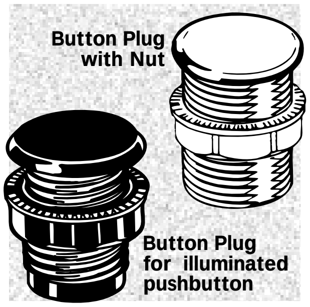
Mounting Dimensions


ø.94[ø23.8mm]
PANEL MOUNTING
ø.82[ø20.8mm]
ø1.12[ø28.5mm]
.22[5.7mm]
1.28[32.5mm]
.13[3.2mm]
1.06[26.8mm]ø
.78[19.8mm]ø
.93[23.5mm]ø
.10[2.5mm]
.55[14mm]

Part Number		Price per ea.
60-1200-XX	Momentary Contact Pushbutton	1.35

BUTTON PLUGS

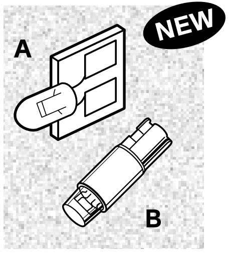
- For use on both wood and metal control panels
- Fills in unused button holes
- Comes with nut
- Button plug fits a 1 1/8" (1.125) hole, for horizontal and Ultimate pushbuttons
- IPB plug fits a 31/32" (.97") hole, for illuminated pushbuttons


Button Plug with Nut
Button Plug for illuminated pushbutton

Part Number		Price per ea. 1-24	25+
52-6212-00	Button Plug with Nut (1.13" dia.)	.85	.75
52-6214-00	Button Plug for Illuminated Pushbutton with nut 31/32" (.97" dia.)	.75	.70

T - 1$^1/_4$ WEDGE BASE LED

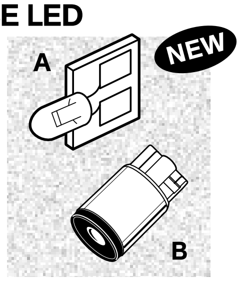
- Replaces standard T-1$^1/_4$ wedge base incandescent lamps with long life, low power LEDs
- Designed to be “drop in” replacements for all the most popular miniature lamps
- Direct replacement for 73, 85, 86 bulbs
- LEDs have resistor on board
- Used for replacement for Poker/VLT pushbuttons



Part Number		Color	Voltage	Ref.	1-99	100+
91-1162-00	T-1$^1/_4$ Wedge base LED	Red	6vdc	A	2.90	2.60
91-0688-00	T-1$^1/_4$ Wedge base LED	White	6vdc	B	12.00	11.50
91-1163-00	T-1$^1/_4$ Wedge base LED	Red	12vdc	A	2.90	2.60
91-0687-00	T-1$^1/_4$ Wedge base LED	White	12vdc	B	12.00	11.50

T - 3$^1/_4$ WEDGE BASE LED

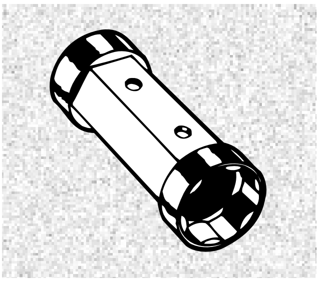
- Replaces standard T-3$^1/_4$ wedge base incandescent lamps with long life, low power LEDs
- Designed to be “drop in” replacements for all the most popular miniature lamps
- Direct replacement for 85,11, 74, 79, 86, 161, 194, 259 bulbs
- LEDs have resistor on board
- Used for replacement for Illuminated pushbuttons



Part Number		Color	Voltage	Ref.	1-99	100+
91-1157-00	T-3$^1/_4$ Wedge base LED	Red	6vdc	A	2.65	2.35
91-0690-00	T-3$^1/_4$ Wedge base LED	White	6vdc	B	12.00	11.50
91-1158-00	T-3$^1/_4$ Wedge base LED	Red	12vdc	A	2.65	2.35
91-0689-00	T-3$^1/_4$ Wedge base LED	White	12vdc	B	12.00	11.50

ILLUMINATED PUSHBUTTON WRENCH

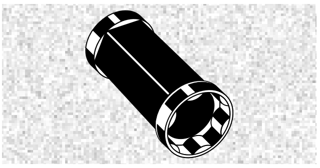
- Dual purpose… one end suitable for illuminated pushbuttons, other end is for pushbuttons with microswitch (Ultimate Pushbutton and with Horizontal Microswitch Pushbuttons)



Part Number		Price per ea. 1-24	25+
53-8002-00	Pushbutton Wrench	1.95	1.50

VLT PUSHBUTTON WRENCH

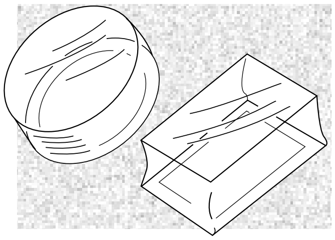
- Dual purpose… one end suitable for VLT pushbuttons, other end suitable for illuminated pushbuttons



Part Number		Price per ea. 1-24	25+
53-8003-00	VLT Pushbutton Wrench	1.95	1.50

ILLUMINATED PUSHBUTTON COVERS

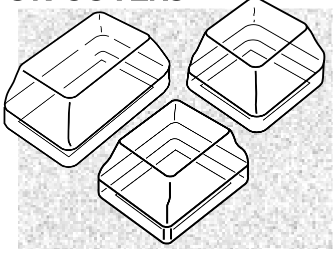
- Protects against spills and scratches
- Duraflex Polyurethane Film



Part Number		Price per ea. 1-24	25+
54-1001-00	Pushbutton Covers (Small Round)	1.95	1.85
54-1004-00	Pushbutton Covers (Small Square)	1.95	1.85
54-1005-00	Pushbutton Covers (Rectangle)	1.95	1.85
54-1003-00	Pushbutton Covers (Large Round)	2.10	1.95
54-1000-00	Pushbutton Covers (Large Square)	2.10	1.95
54-1002-00	Pushbutton Covers (Medium Round)	2.10	1.95

VLT BUTTON COVERS

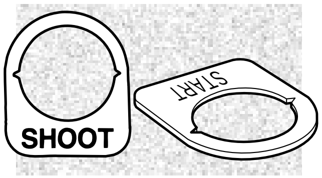
- Protects against spills and scratches
- Durable Duraflex Polyurethane Film



Part Number		Price per ea. 1-24	25+
54-1011-00	Pushbutton Cover for Rectangle VLT w/adapter bezel above panel	2.20	2.10
54-1011-01	Pushbutton Cover for Rectangle VLT w/adapter bezel below panel	2.20	2.10
54-1012-00	Pushbutton Cover for Square VLT w/adapter bezel above panel	2.20	2.10
54-1012-01	Pushbutton Cover for Small Square VLT w/o adapter bezel below panel	2.20	2.10
54-1013-00	Pushbutton Cover for Medium Rectangle VLT w/adapter bezel above panel	2.20	2.10
54-1013-01	Pushbutton Cover for Medium Rectangle VLT w/o adapter bezel below panel	2.20	2.10

IDENTIFICATION TAGS

- For use on all control panels
- Clear polycarbonate plastic, printed on back side
- Custom lettering and artwork available (nominal charge may apply)



Part Number		Price per ea. 1-24	25+
Identification Tags (Specify Printing/Part Number)		.95	.90
95-4009-00	Blank I.D. Tag	.20	.18

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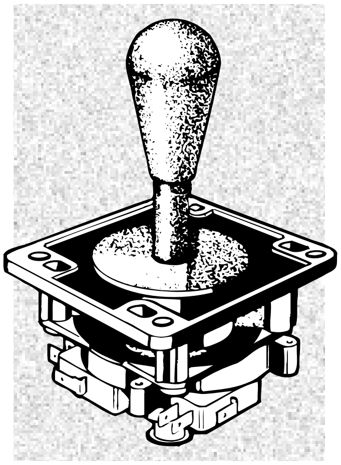
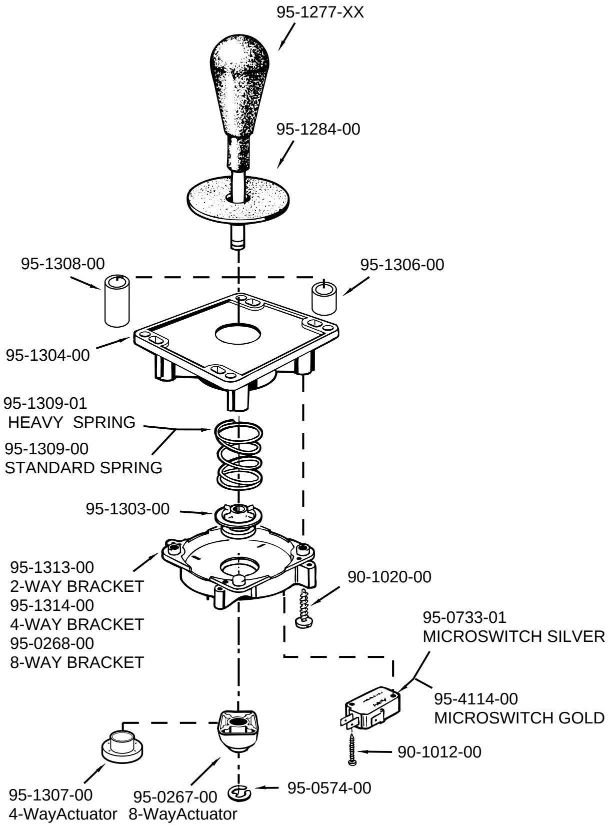
happcontrols.com

for ***NEW*** Product Updates!!

ULTIMATE JOYSTICK

- Precision engineered for the "Ultimate" in game playing feel
- Rugged, yet simple, construction
- Very smooth, spring return-to-center
- Microswitch reliability tested to 10,000,000 cycles
- Adjustable shaft length for metal or wood mounting

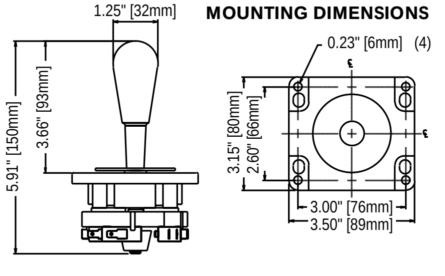



95-1277-XX
95-1284-00
95-1308-00
95-1306-00
95-1304-00
95-1309-01
HEAVY SPRING
95-1309-00
STANDARD SPRING
95-1303-00
95-1313-00
2-WAY BRACKET
95-1314-00
4-WAY BRACKET
95-0268-00
8-WAY BRACKET
90-1020-00
95-0733-01
MICROSWITCH SILVER
95-4114-00
MICROSWITCH GOLD
90-1012-00
95-1307-00
4-WayActuator
95-0267-00
8-WayActuator
95-0574-00

COLOR CODE

XX = Color
10 = Red
12 = Blue
13 = Green
15 = Yellow
16 = Black

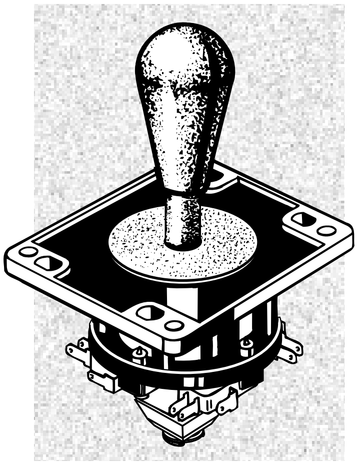
MOUNTING DIMENSIONS

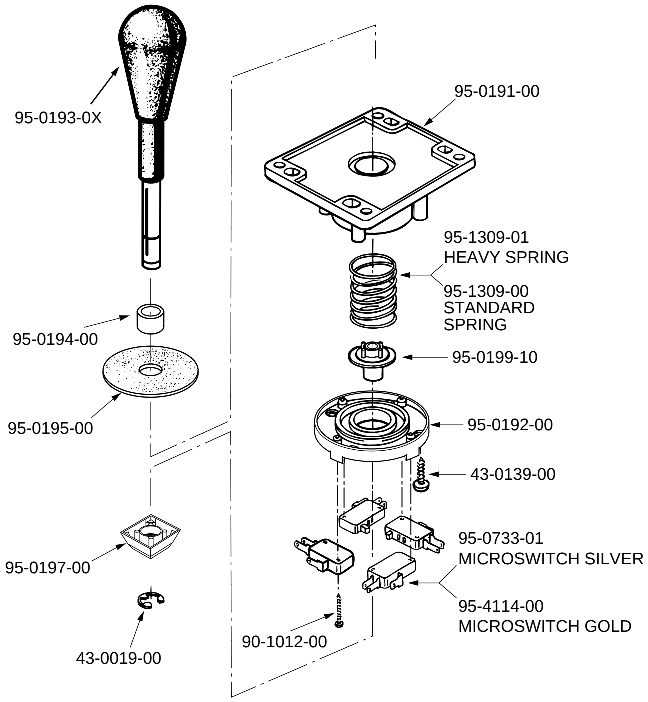

1.25" [32mm]
3.66" [93mm]
5.91" [150mm]
0.23" [6mm] (4)
3.15" [80mm]
2.60" [66mm]
3.00" [76mm]
3.50" [89mm]

Part Number		Price per ea.	25+
50-7608-XX	Ultimate Joystick, 8-way, Microswitch	10.95	8.95
50-7604-XX	Ultimate Joystick, 4-way, Microswitch	10.95	8.95
50-7602-XX	Ultimate Joystick, 2-way, Microswitch	10.95	8.95

COMPETITION JOYSTICK

- Fits wood and metal control panels
- Spring return-to-center
- 8-way operation
- Microswitch reliability tested to 10,000,000 cycles

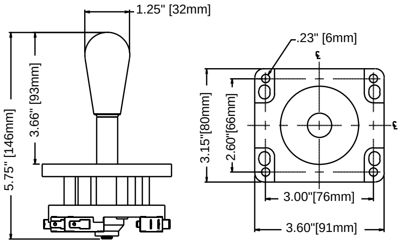



95-0193-0X
95-0191-00
95-1309-01
HEAVY SPRING
95-1309-00
STANDARD
SPRING
95-0194-00
95-0199-10
95-0195-00
95-0192-00
43-0139-00
95-0733-01
MICROSWITCH SILVER
95-0197-00
95-4114-00
MICROSWITCH GOLD
90-1012-00
43-0019-00

MOUNTING DIMENSIONS

COLOR CODE

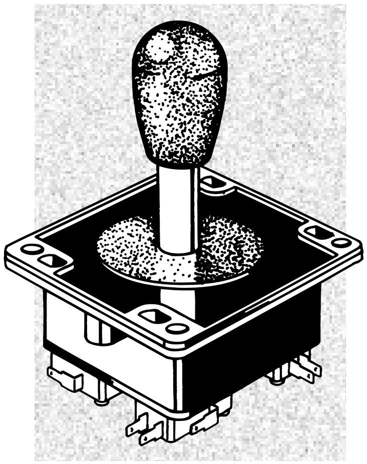
XX = Color
0 = Red
2 = Blue
3 = Green
5 = Yellow
6 = Black

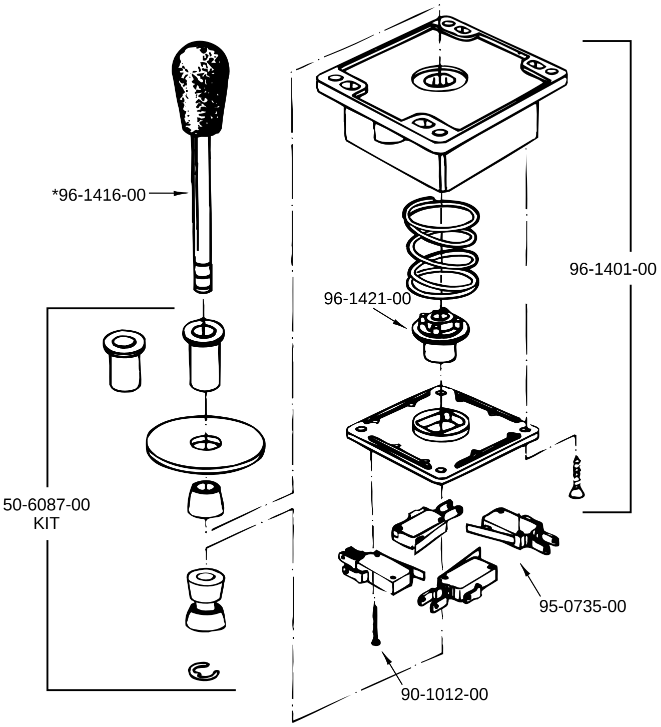

1.25" [32mm]
.23" [6mm]
3.66" [93mm]
5.75" [146mm]
3.15"[80mm]
2.60"[66mm]
3.00"[76mm]
3.60"[91mm]

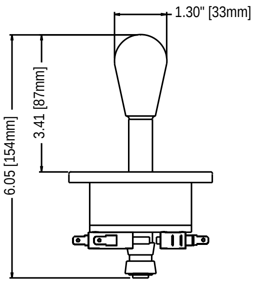
Part Number		Price per ea.	25+
50-6070-1X	Competition Joystick, 8-way, Microswitch	10.95	8.95

SUPER JOYSTICK

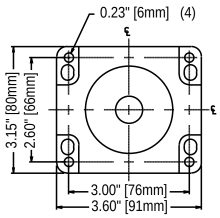
- Nylon and solid steel construction
- Microswitch reliability tested to 10,000,000 cycles
- Unique handle design
- Spring return-to-center
- Rugged construction, our strongest joystick
- Change actuation to 4-way or 8-way simply by flipping actuator over
- Adjustable shaft length for metal or wood mounting




*96-1416-00
96-1421-00
96-1401-00
50-6087-00
KIT
95-0735-00
90-1012-00


1.30" [33mm]
3.41 [87mm]
6.05 [154mm]

MOUNTING DIMENSIONS

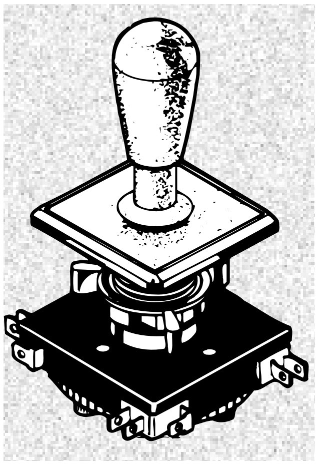

0.23" [6mm] (4)
3.15" [80mm]
2.60" [66mm]
3.00" [76mm]
3.60" [91mm]

Part Number		Price per ea.	25+
50-6084-00	Super Joystick (4 & 8-way) Microswitch	11.95	9.95

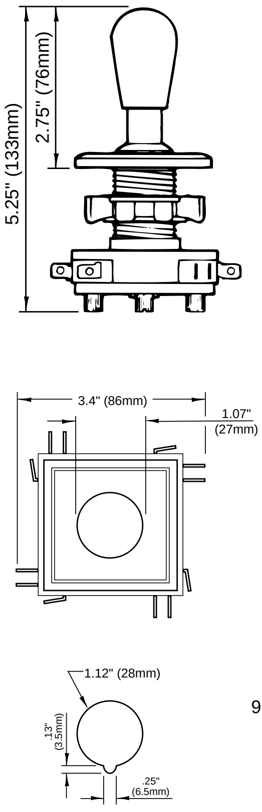
*Available in black knob only

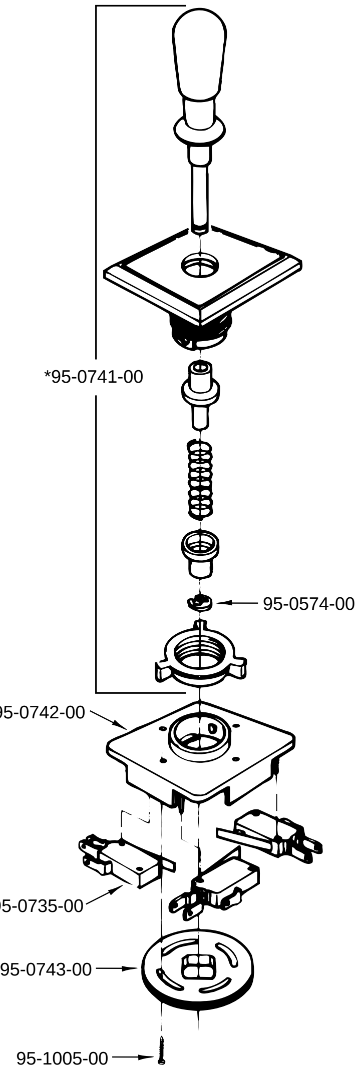
UNIVERSAL JOYSTICK

- Simple universal mounting on wood or metal
- 8-way or 4-way, simply reposition base stop
- Low profile knob, molded nylon and steel construction
- Microswitch reliability



MOUNTING DIMENSIONS


2.75" (76mm)
5.25" (133mm)
3.4" (86mm)
1.07" (27mm)
1.12" (28mm)
.13" (3.5mm)
.25" (6.5mm)

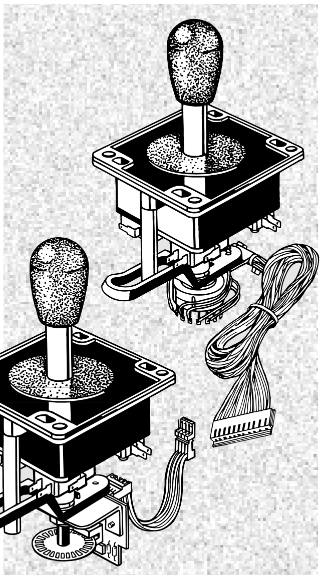

*95-0741-00
95-0574-00
95-0742-00
95-0735-00
95-0743-00
95-1005-00

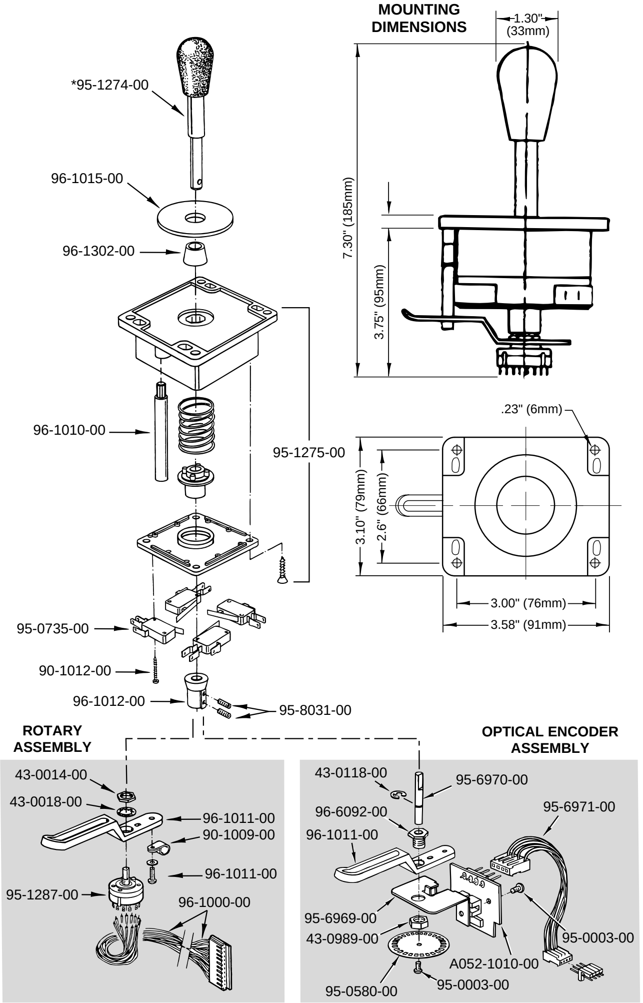
Part Number		Price per ea.	25+
50-6048-00	Universal Microswitch Joystick (4 & 8-way)	12.95	11.95

*Available in black knob only

ROTARY & OPTICAL JOYSTICK

- 12 position rotary switch
- Complete with harness and connector
- 8-way microswitch operation
- Microswitch reliability tested to 10,000,000 cycles
- Available with Optical encoder assembly




MOUNTING DIMENSIONS
1.30" (33mm)
7.30" (185mm)
3.75" (95mm)
.23" (6mm)
3.10" (79mm)
2.6" (66mm)
3.00" (76mm)
3.58" (91mm)
*95-1274-00
96-1015-00
96-1302-00
96-1010-00
95-1275-00
95-0735-00
90-1012-00
96-1012-00
95-8031-00
ROTARY ASSEMBLY
43-0014-00
43-0018-00
96-1011-00
90-1009-00
96-1011-00
95-1287-00
96-1000-00
OPTICAL ENCODER ASSEMBLY
43-0118-00
95-6970-00
96-6092-00
95-6971-00
96-1011-00
95-6969-00
43-0989-00
95-0003-00
A052-1010-00
95-0580-00
95-0003-00

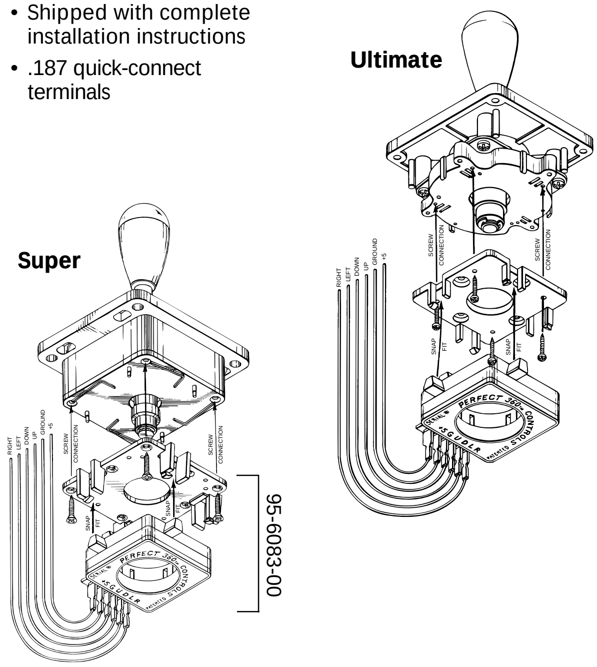
Part Number		Price per ea.	25+
50-5618-00	8-way Rotary Joystick	35.95	29.95
50-5619-00	8-way Optical Rotary Joystick	39.95	33.95

*Available in black knob only

PERFECT 360° ELECTRONIC JOYSTICK

- Photo electronic switching used instead of conventional switches, for long life
- Precise 45° 8-way and 90° 4-way operation
- Sensitive response for incredible game control
- Same rugged construction as Happ Super and Ultimate Joystick
- Shipped with complete installation instructions
- .187 quick-connect terminals

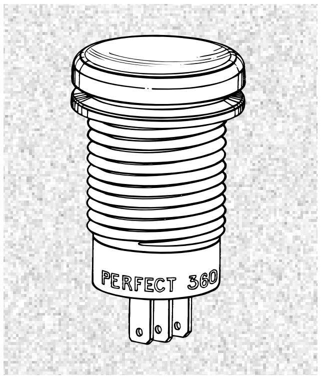
PERFECT 360™ JOYSTICK CONTROLS


Ultimate
Super
RIGHT
LEFT
DOWN
UP
GROUND
+5
SCREW CONNECTION
SNAP FIT
PERFECT 360
95-6083-00

Part Number		Price per ea.	12+
50-6083-00	Perfect 360° 4-way/8-way Super Joystick	34.95	33.95
95-6083-00	Perfect 360° Conversion Kit for Ultimate & Super Joysticks	21.95	20.95

PERFECT 360° PUSHBUTTON

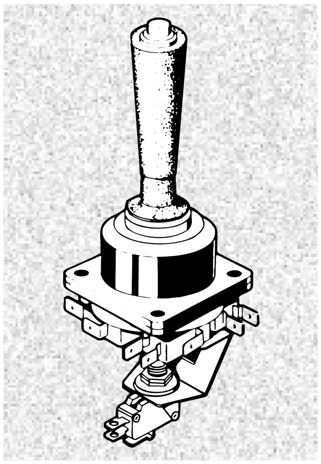
- Spill-resistant
- Solid state switching
- Eliminates service calls due to drink spills & Microswitch failure
- Comes with one Quick Connect, .187 term for +5VDC connection

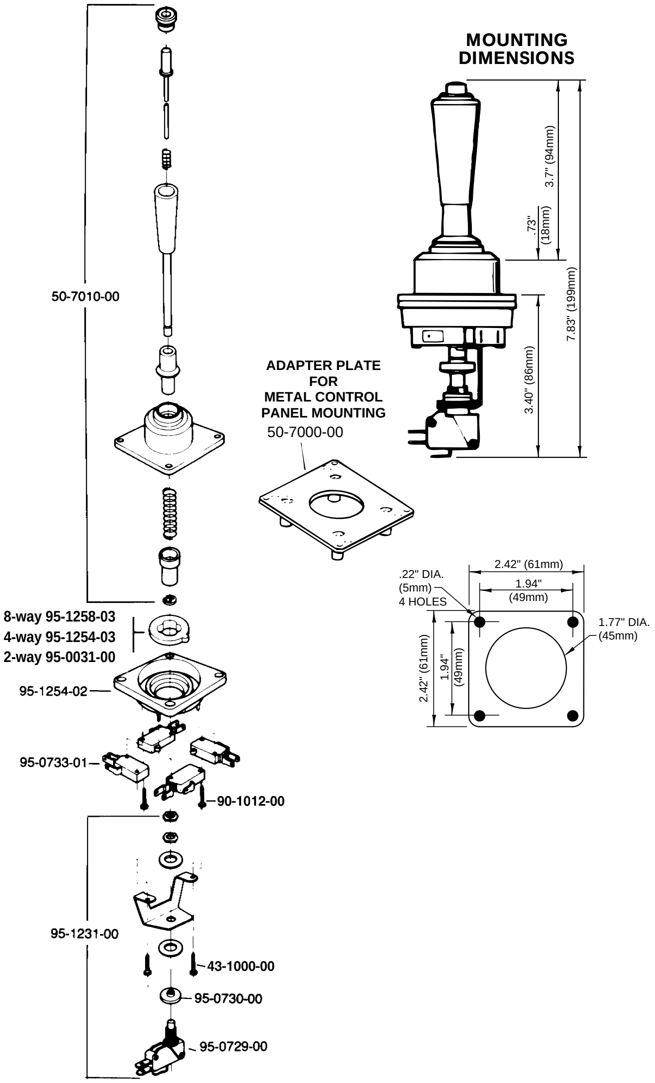

PERFECT 360

Part Number		Price per ea.	6+
50-6090-10	Perfect 360° Pushbutton, w/Nut, Red	5.95	5.45
50-6090-11	Perfect 360° Pushbutton, w/Nut, White	5.95	5.45
50-6090-12	Perfect 360° Pushbutton, w/Nut, Blue	5.95	5.45

FIRE BUTTON COMPACT JOYSTICK

- Nylon and steel construction
- Microswitch reliability tested to 10,000,000 cycles
- Available in 2, 4 or 8 way operation
- Compact size, installs in 2.5 inches

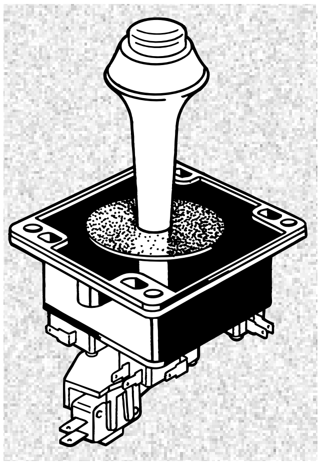


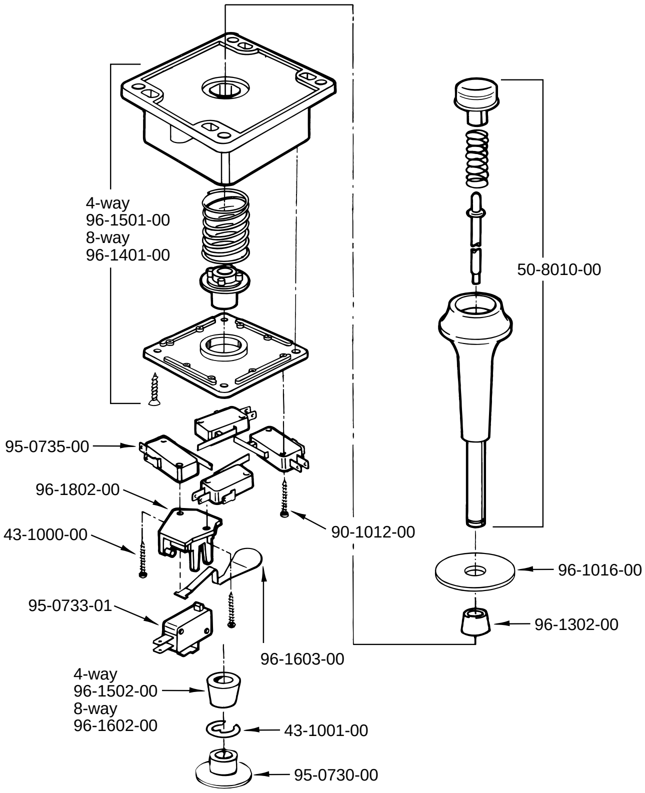

50-7010-00
8-way 95-1258-03
4-way 95-1254-03
2-way 95-0031-00
95-1254-02
95-0733-01
90-1012-00
95-1231-00
43-1000-00
95-0730-00
95-0729-00
MOUNTING DIMENSIONS
3.7" (94mm)
.73" (18mm)
7.83" (199mm)
3.40" (86mm)
ADAPTER PLATE FOR METAL CONTROL PANEL MOUNTING
50-7000-00
.22" DIA. (5mm) 4 HOLES
2.42" (61mm)
1.94" (49mm)
1.77" DIA. (45mm)
2.42" (61mm)
1.94" (49mm)

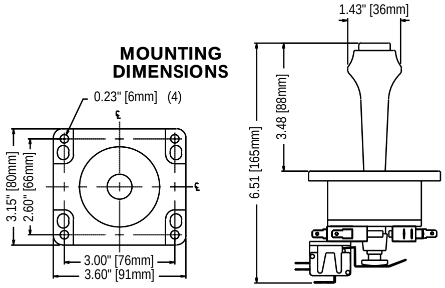
Part Number		Price per ea.	25+
50-7008-00	8-way Microswitch Joystick w/Fire Button	25.95	23.95
50-7004-00	4-way Microswitch Joystick w/Fire Button	25.95	23.95
50-7002-00	2-way Microswitch Joystick w/Fire Button	36.40	33.60
50-7000-00	Adapter Plate for Metal Control Panel Mounting	2.95	2.75

TOP FIREBUTTON SUPER JOYSTICK

- Same rugged construction and smooth operation as Super Joystick
- Microswitch reliability tested to 10,000,000 cycles
- “Flare” style handle for comfortable grip
- Simple, direct, fire button switch action; uses standard microswitch
- Available in 4-way or 8-way




4-way 96-1501-00
8-way 96-1401-00
50-8010-00
95-0735-00
96-1802-00
43-1000-00
90-1012-00
96-1016-00
95-0733-01
96-1302-00
96-1603-00
4-way 96-1502-00
8-way 96-1602-00
43-1001-00
95-0730-00

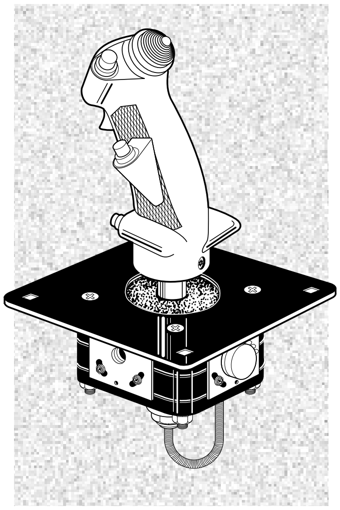

MOUNTING DIMENSIONS
0.23" [6mm] (4)
3.15" [80mm]
2.60" [66mm]
3.00" [76mm]
3.60" [91mm]
1.43" [36mm]
3.48 [88mm]
6.51 [165mm]

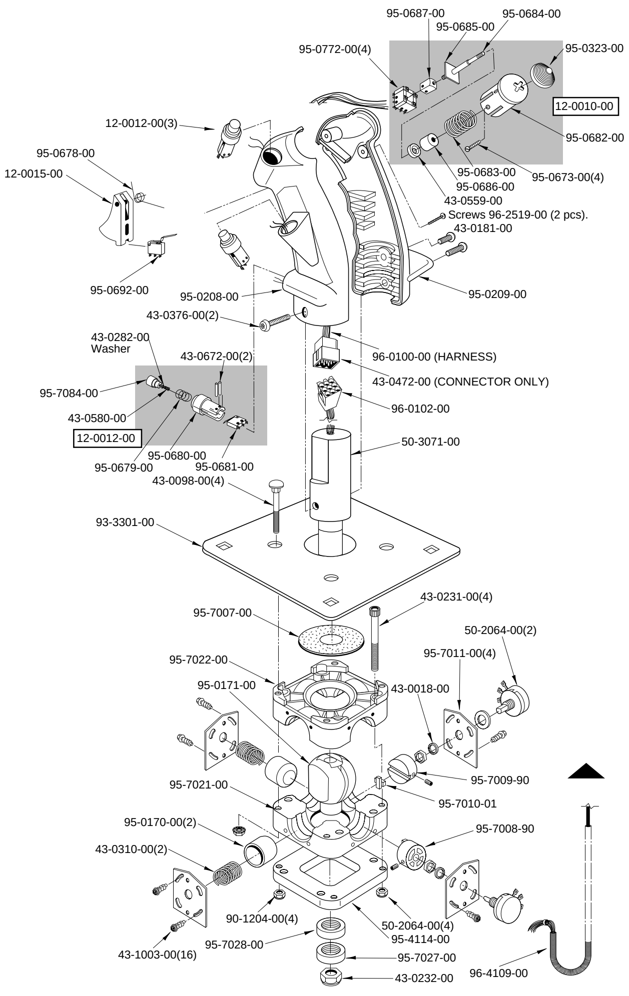
Part Number		Price per ea.	25+
50-8000-10	8-way Top Firebutton Super Joystick	26.95	23.95
50-4000-10	4-way Top Firebutton Super Joystick	26.95	23.95

Call 888-BUY-HAPP To Order

ANALOG JOYSTICK B-8 GRIP

- Rugged construction
- Authentic airplane flight stick (B-8)
- 8 functions on grip (4-way thumbswitch, 4 trigger switches)
- 5k potentiometers fitted as standard
- Optional pot. amplifier PC board allows variable output from potentiometer
- This product is manufactured under a technology license agreement with **Atari Games Corporation**®

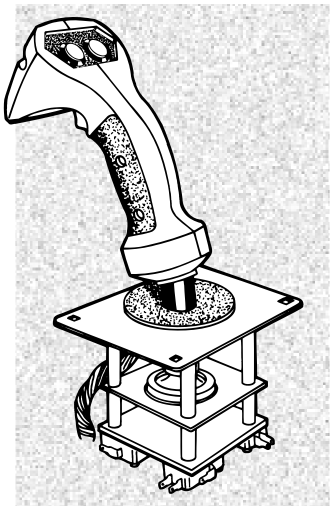


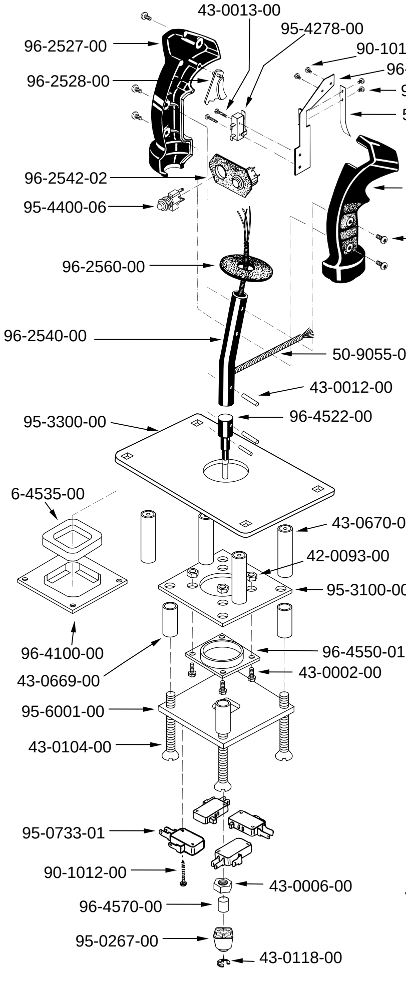

95-0687-00
95-0684-00
95-0685-00
95-0772-00(4)
95-0323-00
12-0010-00
95-0682-00
12-0012-00(3)
95-0678-00
12-0015-00
95-0683-00
95-0686-00
95-0673-00(4)
43-0559-00
Screws 96-2519-00 (2 pcs).
43-0181-00
95-0692-00
95-0208-00
95-0209-00
43-0376-00(2)
43-0282-00
Washer
43-0672-00(2)
96-0100-00 (HARNESS)
43-0472-00 (CONNECTOR ONLY)
95-7084-00
96-0102-00
43-0580-00
12-0012-00
50-3071-00
95-0680-00
95-0679-00
95-0681-00
43-0098-00(4)
93-3301-00
43-0231-00(4)
95-7007-00
50-2064-00(2)
95-7011-00(4)
95-7022-00
95-0171-00
43-0018-00
95-7009-90
95-7021-00
95-7010-01
95-0170-00(2)
95-7008-90
43-0310-00(2)
90-1204-00(4)
50-2064-00(4)
95-4114-00
95-7028-00
95-7027-00
43-1003-00(16)
43-0232-00
96-4109-00

Part Number		Price per ea.	25+
95-0251-00	Analog Joystick, B-8 Grip	240.00	220.00
95-0394-00	PC Version, Analog Joystick, B-8 Grip w/15-Pin Cable	245.95	225.95

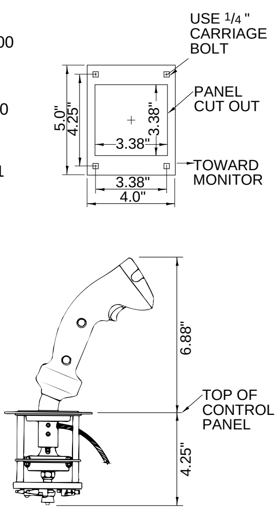
HEAVY DUTY 8-WAY TRIGGER JOYSTICK

- Comfortable and attractive, contoured ABS handle
- Rugged construction
- 3 Styles:
  - – Trigger only
  - – Trigger & single fire button
  - – Trigger & 2 fire buttons
- Simple to install




43-0013-00
96-2527-00
95-4278-00
90-1012-00
96-4101-00
96-2528-00
95-0003-00
50-8357-00
96-2526-00
96-2542-02
95-4400-06
96-2516-00
96-2560-00
96-2540-00
50-9055-00
43-0012-00
95-3300-00
96-4522-00
6-4535-00
43-0670-00
42-0093-00
95-3100-00
96-4100-00
96-4550-01
43-0669-00
43-0002-00
95-6001-00
43-0104-00
95-0733-01
90-1012-00
43-0006-00
96-4570-00
95-0267-00
43-0118-00

MOUNTING DIMENSIONS

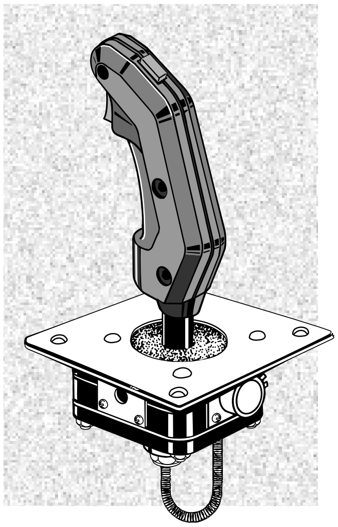

USE 1/4 " CARRIAGE BOLT
PANEL CUT OUT
5.0"
4.25"
3.38"
3.38"
TOWARD MONITOR
3.38"
4.0"
6.88"
TOP OF CONTROL PANEL
4.25"

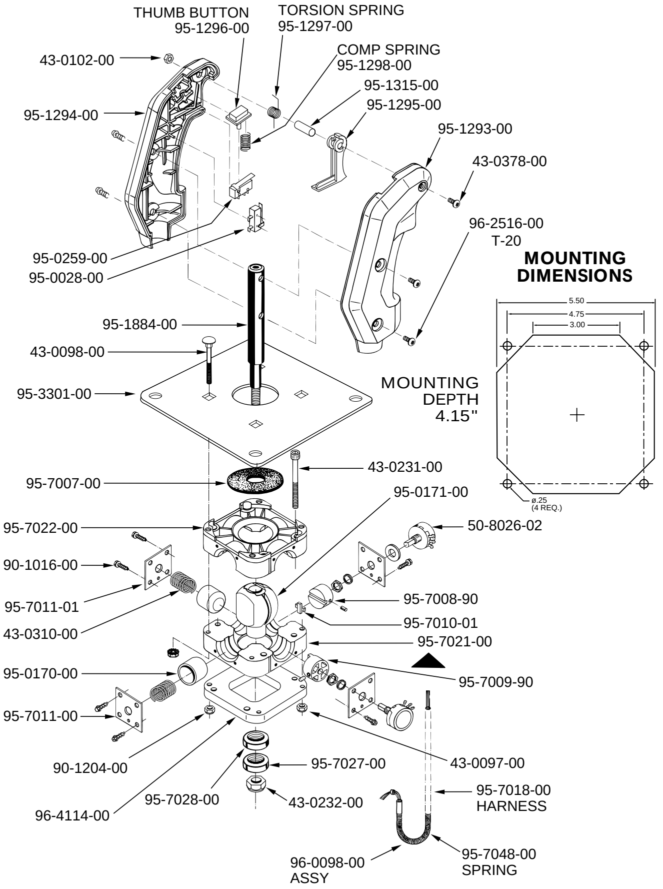
Part Number		Price per ea.	6+
50-9970-00	H.D. Joystick, Trigger only	90.30	88.65
50-9980-00	H.D. Joystick, w/1 Fire Button	94.60	92.85
50-9975-00	H.D. Joystick, w/2 Fire Buttons	96.20	94.45
95-0393-00	PC Version, Analog Joystick with Heavy Duty Handle w/15-Pin Cable	183.00	158.00

See page 11 for Torx Security Wrench

ANALOG JOYSTICK WITH TRIGGER HANDLE

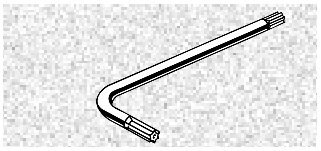
- Rugged construction
- 5k potentiometers fitted as standard (optical encoder version available)
- Microswitch reliability tested to 10,000,000 cycles
- Pot. amplifier PC board allows variable output from potentiometer
- This product is manufactured under a technology license agreement with **Atari Games Corporation**®




THUMB BUTTON
95-1296-00
TORSION SPRING
95-1297-00
43-0102-00
COMP SPRING
95-1298-00
95-1315-00
95-1295-00
95-1294-00
95-1293-00
43-0378-00
96-2516-00
T-20
MOUNTING DIMENSIONS
95-0259-00
95-0028-00
5.50
4.75
3.00
95-1884-00
43-0098-00
MOUNTING DEPTH 4.15"
95-3301-00
43-0231-00
95-7007-00
95-0171-00
ø.25
(4 REQ.)
95-7022-00
50-8026-02
90-1016-00
95-7011-01
95-7008-90
43-0310-00
95-7010-01
95-7021-00
95-0170-00
95-7009-90
95-7011-00
90-1204-00
43-0097-00
95-7027-00
95-7018-00
HARNESS
95-7028-00
43-0232-00
96-4114-00
96-0098-00
ASSY
95-7048-00
SPRING

Part Number		Price per ea.	6+
95-0065-00	Analog Joystick w/Trigger Handle	150.00	130.00
95-0392-00	PC Version, Analog Joystick with Trigger Handle w/15-Pin Cable	185.00	160.00

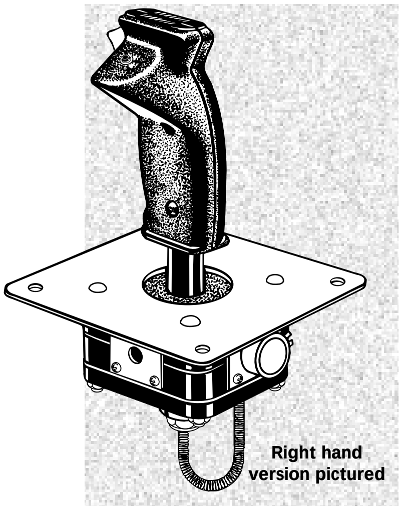
TORX T-20 WRENCH FOR SECURITY SCREWS

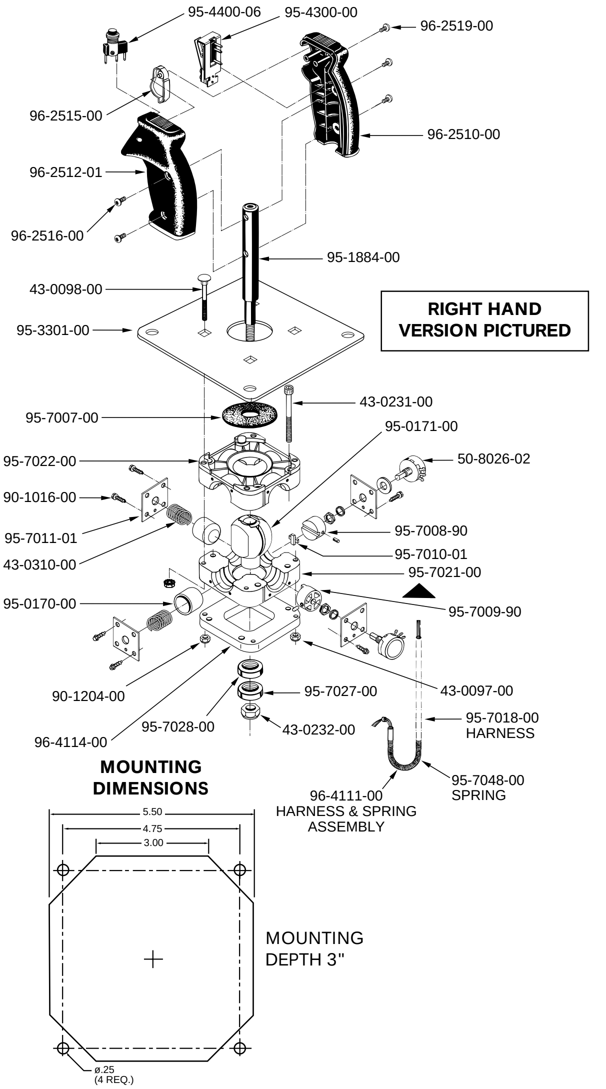


Part Number		Price per ea.	6+
49-0049-00	Torx T-20 Wrench	5.85	5.25

ANALOG JOYSTICK

- Rugged construction
- Positive return to center
- Optional pot. amplifier PC board allows variable output from potentiometer
- This product is manufactured under a technology license agreement with **Atari Games Corporation**®

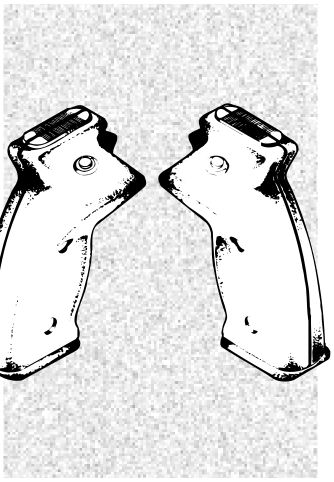

Right hand version pictured


95-4400-06
95-4300-00
96-2519-00
96-2515-00
96-2510-00
96-2512-01
96-2516-00
95-1884-00
43-0098-00
RIGHT HAND VERSION PICTURED
95-3301-00
43-0231-00
95-7007-00
95-0171-00
95-7022-00
50-8026-02
90-1016-00
95-7008-90
95-7011-01
95-7010-01
43-0310-00
95-7021-00
95-0170-00
95-7009-90
43-0097-00
90-1204-00
95-7027-00
95-7018-00
HARNESS
95-7028-00
43-0232-00
96-4114-00
MOUNTING DIMENSIONS
95-7048-00
SPRING
96-4111-00
HARNESS & SPRING ASSEMBLY
5.50
4.75
3.00
MOUNTING DEPTH 3"
ø.25
(4 REQ.)

Part Number		Price per ea.	6+
95-0172-00	Right hand Analog Joystick	150.00	130.00
95-0173-00	Left hand Analog Joystick	150.00	130.00
95-0390-00	PC Version, Right Hand Analog Joystick with 15-Pin Cable	165.00	145.00
95-0391-00	PC Version, Left Hand Analog Joystick with 15-Pin Cable	165.00	145.00

GRIP ASSEMBLIES LEFT HAND & RIGHT HAND

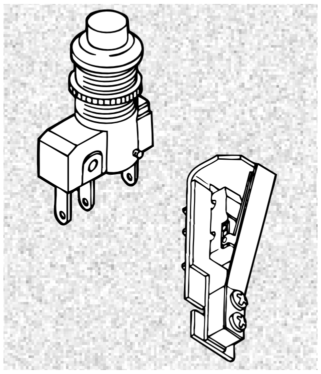
- Fitted with microswitches in thumb and trigger switch
- Long life, 10,000,000 cycle rated



Part Number		Price per each
Left Hand Assemblies		
50-2508-00	LH Grip Assembly w/ Thumb Switch	19.95
50-2502-00	LH Grip Assembly w/o Thumb Switch	11.75
Right Hand Assemblies		
50-2507-00	RH Grip Assembly w/ Thumb Switch	19.95
50-2501-00	RH Grip Assembly w/o Thumb Switch	11.75

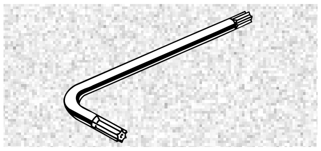
THUMB & TRIGGER SWITCH ASSEMBLIES

- With GOLD CHERRY Microswitch
- Thumb Switch Assembly fits $^{1}/_{2}$" Ø panel hole up to $^{3}/_{8}$" thick
- Thumb Switch Assembly replaces Cherry P163 and Licon switches on many applications
- Trigger Switch Assembly replaces original leaf switch and bracket on games listed above



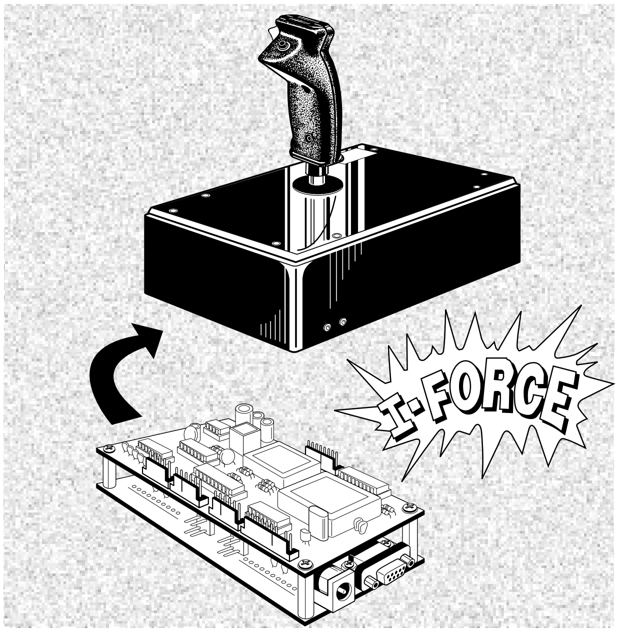
Part Number		Price per each
95-4300-00	Trigger Switch Assembly	8.00
95-4400-00	Thumb Switch Assembly (Red)	9.00
95-4400-06	Thumb Switch Assembly (Black)	9.00
96-2515-00	Trigger, red	2.50
96-2510-00	Outer grip, RH	4.95
96-2512-00	Inner grip, RH (undrilled)	4.95
96-2511-00	Outer grip, LH	4.95
96-2513-00	Inner grip, LH (undrilled)	4.95
96-2519-00	Screw, Outer to Inner for Grip (2 per)	.20
96-2516-00	Screw, Grip Assembly to Tube (4 per)	.40

TORX WRENCHES FOR SECURITY SCREWS



Part Number		Price per ea.	6+
49-0049-00	Torx T-20 Wrench	5.85	5.25
49-0452-00	Torx T-10 Wrench	8.00	7.00

FORCE FEEDBACK JOYSTICK



Impulse Stick™

The Impulse Stick from Immersion Corporation is the world's first force feedback joystick designed specifically for Arcade and Location Based Entertainment Systems.

The Impulse Stick hardware module is an easy to integrate solution, including the hardware, electronics, and driver software needed to interface with your system. The Impulse Stick is easy to mount in your enclosure and can interface to your processor by RS232 Serial, Universal Serial Bus, or ISA Card. The interface electronics and drivers support the PC and other platforms. The Impulse Stick also supports the popular I-FORCE standard and is therefore fully DirectX compatible on the Windows platform.

Force Feedback is a new technology that lets users actually feel physical sensations that represent and enhance the gaming action. Imagine using a force feedback joystick to control a simulated space ship and feeling the g-forces as you escape the earth's atmosphere. Imagine bouncing a simulated ball on a simulated racquet and feeling the mass of the ball, the springiness of the racquet, and the crack of impact as the ball snaps off the racquet strings. Imagine taking a sharp turn in a simulated F-16 and wrestling with real centrifugal forces on the stick. The Impulse Stick is a module you can incorporate into your Arcade System that makes all of these things possible, and more.

I-Force Studio™: The I-Force Studio Toolset provides an interactive graphical environment that simplifies the entire force feedback development process. Designing "feels" requires a creative and iterative process where parameters are defined, experienced, and modified until the sensations are just right. I-Force Studio handles all of the complex programming tasks, allowing you to concentrate on feel, not code.

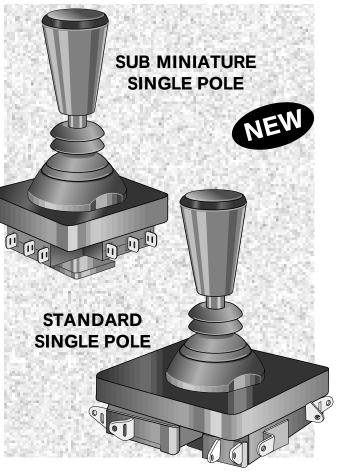
For those with high-volume component requirements, Happ Controls can customize the configuration of the Impulse Stick to meet your production needs. Please call for pricing.

Max Force Output: 1 lb
Range of Motion: +/- 25 degrees for each axis
Position Tracking Resolution:
0.02 degrees (ISA), 0.2 degrees (I-FORCE)
Dimensions: 12.1" L x 9.3" W x 3.75" H
Interface: ISA Card for PC or I-FORCE

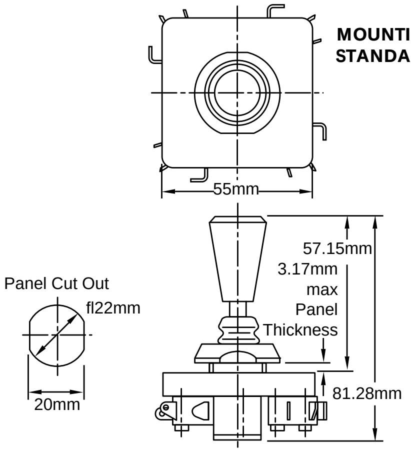
Part Number		Price per ea.
95-0824-00	Force Feedback Joystick	2495.00

COMPACT JOYSTICK

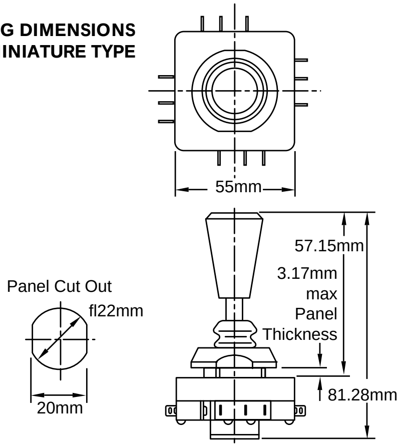
- Durable black glass filled nylon body
- Stainless steel reinforced spindle, phenolic knob and neoprene cowl for sealing joystick movement
- 4-Way or 8-Way Gated
- Single or Double pole switched
- Suitable for panel mounting
- Temperature Rating: -30˚C to +85˚C


SUB MINIATURE SINGLE POLE
NEW
STANDARD SINGLE POLE

MOUNTING DIMENSIONS STANDARD TYPE


55mm
Panel Cut Out
fl22mm
20mm
57.15mm
3.17mm max Panel Thickness
81.28mm

MOUNTING DIMENSIONS SUB MINIATURE TYPE


55mm
Panel Cut Out
fl22mm
20mm
57.15mm
3.17mm max Panel Thickness
81.28mm

JOYSTICK TYPE
0= Standard
1= Subminiature

AXIS TYPE
4= 4-way
8= 8-way

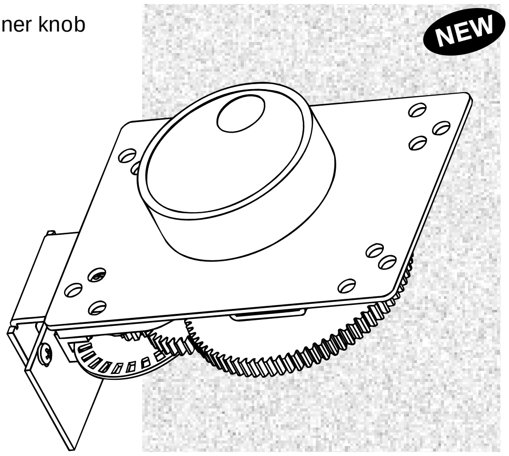
50-305 **J** - **A** **S**

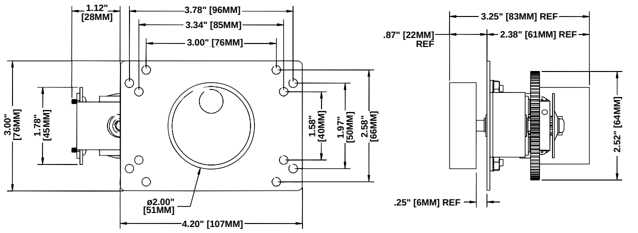
SWITCH TYPE
1= Single type
2= Double type

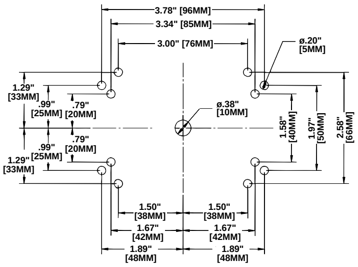
Part Number	
50-3050-A1	Standard, Single Pole, (Specify Axis Type)
50-3050-A2	Standard, Double Pole, (Specify Axis Type)
50-3051-A1	Sub-Miniature, Single Pole, (Specify Axis Type)
50-3051-A2	Sub-Miniature, Double Pole, (Specify Axis Type)

TRACKWHEEL CONTROL

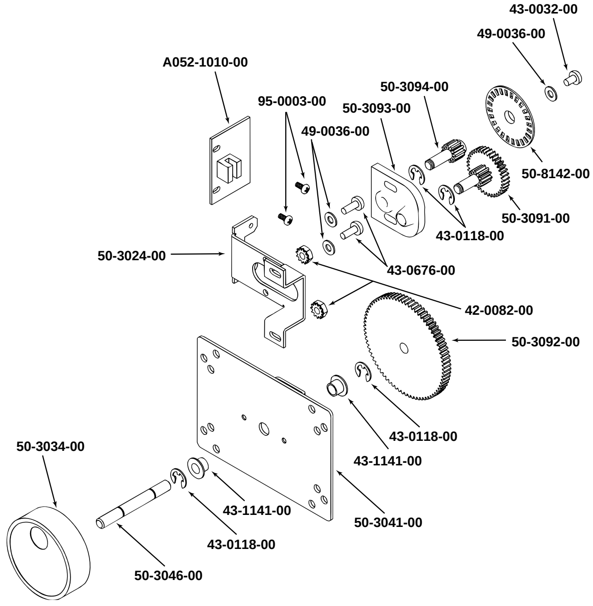
- With spinner knob




1.12" [28MM]
3.78" [96MM]
3.34" [85MM]
3.00" [76MM]
3.00" [76MM]
1.78" [45MM]
1.58" [40MM]
1.97" [50MM]
2.58" [66MM]
ø2.00" [51MM]
4.20" [107MM]
3.25" [83MM] REF
.87" [22MM] REF
2.38" [61MM] REF
2.52" [64MM]
.25" [6MM] REF


3.78" [96MM]
3.34" [85MM]
3.00" [76MM]
ø.20" [5MM]
1.29" [33MM]
.99" [25MM]
.79" [20MM]
ø.38" [10MM]
.79" [20MM]
.99" [25MM]
1.29" [33MM]
1.58" [40MM]
1.97" [50MM]
2.58" [66MM]
1.50" [38MM]
1.50" [38MM]
1.67" [42MM]
1.67" [42MM]
1.89" [48MM]
1.89" [48MM]

MOUNTING DIMENSIONS FOR METAL PLATE


43-0032-00
49-0036-00
A052-1010-00
50-3094-00
95-0003-00
50-3093-00
49-0036-00
50-8142-00
50-3091-00
43-0118-00
50-3024-00
43-0676-00
42-0082-00
50-3092-00
43-0118-00
50-3034-00
43-1141-00
43-1141-00
50-3041-00
43-0118-00
50-3046-00

Part Number		Price per ea.
95-0931-00	Trackwheel Control	110.00

CONTROL INTERFACE BOARD-CIB 1000 DEVELOPMENT KIT

NOW 10 TIMES FASTER

- **What it Does:**

  The Happ Controls Control Interface Development Kit contains everything needed to provide an interface between any Happ Controls input device (joystick, button, trackball, steering wheel, etc.) and a PC. This will allow the use of Happ's rugged and reliable controls in a game or any custom designed application intended for public or commercial use where flimsy consumer type controls will not last. The kit contains a PCB, power supply, demo and debug software, software drivers and all the necessary cables and documentation to get you going.

- **How it Connects:**

  The CIB-1000 PCB is intended to be located near the controls that are to be interfaced to the PC. The CIB PCB connects to the controls via a simple wire harness and communicates to the PC via an RS-232 link connecting to a serial port on the PC. The CIB can be located over 100 feet from the PC. The CIB is powered by a 9 volt AC adapter (included) and can also operate on 12 VDC.

- **How it Works:**

  The CIB does all the communicating with the controls, freeing the software from this time consuming task. When used with the DOS driver, the CIB will poll the controls every millisecond or so and transmit this information to the PC where it is stored in local memory. The customer's application can then quickly read the data from local PC memory by either polling or checking a flag. If the flag is set, the data has changed since last being read and you will know that there is new data waiting.

  A driver is also included for Win 95 based applications that use Direct X. This driver installs the controls in Windows Control Panel/Joystick just like a consumer control. All setup and calibration is done in Control Panel. Communication is at 57KB, fast enough to prevent any control latency. (Pentium 133 and Direct X 3 or after required.)

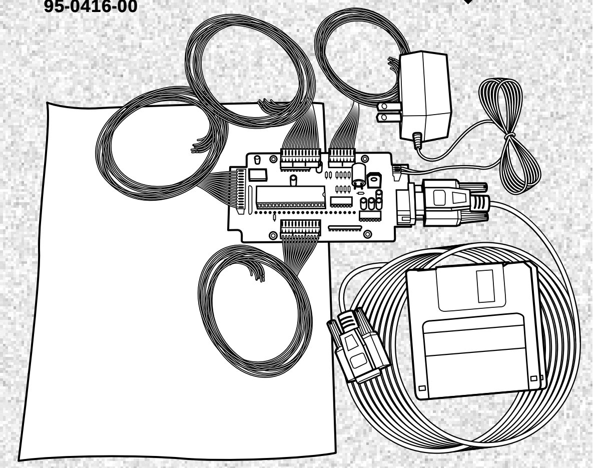
- **Development Kit Includes the following items:**

  Control Interface PCB: 96-0167-00
  Analog Input Harness: 96-0168-00
  I/O Harness 1: 96-0169-00
  I/O Harness 2: 96-0170-00
  Switch Input Harness: 96-0171-00
  Shielded 10 foot RS-232 Cable: 96-0172-00
  Power Supply: 80-0073-00
  CIB Utilities Disk: 96-0180-00
  Win95 Driver Disk: 96-0200-00

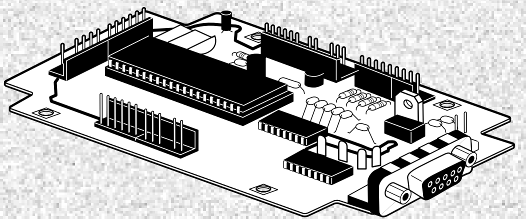
Sorry, the above drivers are not available for MAC.

HAPP CONTROLS NEW INNOVATIVE PRODUCT

Development Kit
95-0416-00



Control Interface Board only
96--0167-00



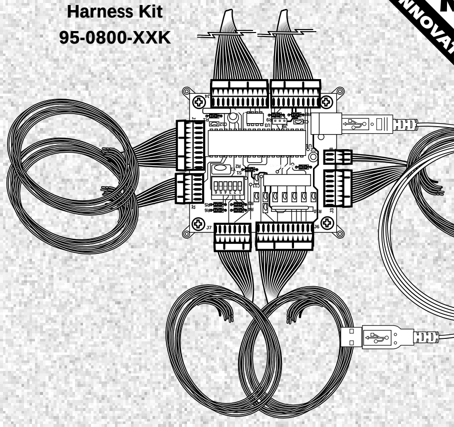
Part Number		Price per ea.	25+
95-0416-00	Control Interface Board - CIB 1000 Development Kit	220.00	215.00
96-0167-00	Control Interface Board Only	150.00	145.00

Visit our web site:
for ***NEW*** Product Updates!!

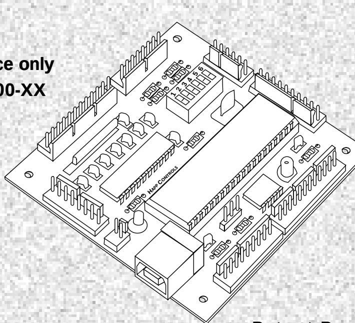
USB GAME CONTROL INTERFACE (UGCI)

Universal Serial Bus (USB) Game Control Interface UGCI™ allows Personal computers equipped with USB to easily interface with standard "Arcade Quality" controls from Happ Controls via the USB Port. The device will be automatically configured as soon as it is physically attached, without the need to reboot or run Setup.

Interface with Harness Kit
95-0800-XXK



Interface only
95-0800-XX



Patent Pending

Benefits of utilization of the USB intelligent interface:

- Hot Swapping Capability
- Multiple Peripheral, with use of USB hubs, allows up to 127 different peripherals to be used at one time.
- Moves Data at a High Speed
- Distributes electrical power to many peripherals. USB lets the PC automatically sense the power that's required and deliver it to the device. This features eliminates the need for auxiliary power supplies.
- Share Peripherals between PC platforms
- Higher Bandwidth
- Simplicity of use
- Established base of approximately 100 Million USB computers
- Built-in operating system support for devices

Features of Happ Controls Universal Serial Bus (USB) Game Control Interface (UGCI)

- High Performance Universal Serial Bus (USB) IO Channel.
- Low cost
- Robust fault tolerant design which is USB HID compliant.
- DirectX 5,6,7© ready.
- WINDOWS 98™ and WINDOWS NT 5.0™ Operating System Ready
- DOS Based Game Support for DOS only games
- Apple OS 8.0 "iMac" Compliant
- OAAF Compliant
- Seven high speed 8-bit 20 Khz analog channels.
- 32 Digital inputs at 10 Khz Each.
- CPU resource efficient, 10 times faster than RS-232 base arcade models
- Supports game running at 120 FPS
- Plug-And-Play and ACPI Compliant
- Up to two Coin/Bill Counters
- Host CPU Reset watchdog timer
- Mappable keyboard buttons
- 3 Models available to best fit application
- Daughter board available for high current outputs (96-0476-00)
- Combine one or more units to create a unique Arcade interface using the dip-switch selector.
- Small compact size 3"x3"
- USB 1.0 compliant

Part Number		Price per ea.	25+
95-0800-XXK	USB Game Control Interface (UGCI) With Harness Kit, USB Cable and PCB Mounting Feet (Specify Model)	159.95	150.95
95-0800-XX	USB Game Control Interface Only (Specify Model)	144.95	135.95
96-0735-00	USB Cable 2 meters Type A to B	8.95	7.95

Models available:
XX = Model Type
10 = Driving
20 = Flying
30 = Fighting

Models available:(Controls Sold Separately)

Driving USB (95-0800-10) Supports:

- Steering wheel
- Brake
- Throttle
- 2 Coin/Bill-drops
- Up to Six Buttons
- Trackball with Three Buttons
- 4-Speed Shifter with Reverse
- 2 Start Buttons
- Host Watchdog Timer

Flying USB (95-0800-20) Supports:

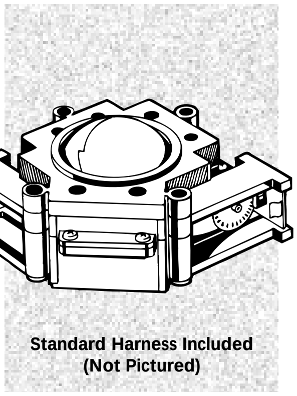
- Analog B-8 Style
- Joystick, with POV hat
- Trackball with Three Buttons
- Rudder Pedal
- Throttle
- 2 Coin/Bill-drops
- 2 Start Buttons
- Host Watchdog Timer

Fighting USB (95-0800-30) Supports:

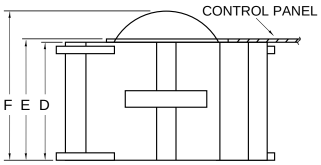
- 2 Eight Position Digital Joysticks
- 6 Buttons for each Joystick
- Trackball with Three Buttons
- 2 Coin/Bill Counters
- Host Watchdog Timer
- 2 Select Buttons

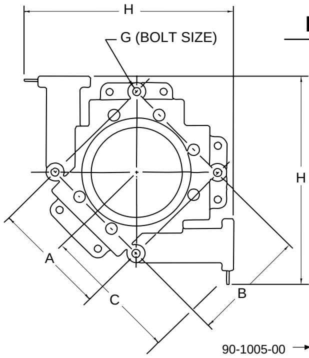
TRACKBALLS – 2-1/4" & 3" DIAMETER

- Made in U.S.A.
- Durable black polycarbonate plastic material
- 2$^1/_4$" diameter ball (standard color white)
- 3" diameter ball (standard color black)
- Standard AMOA harness included
- Custom colors available
- Mounting hardware sold separately
- Can be used as a heavy duty alternative to a mouse for interactive displays when used in conjunction with Trackball Interface Kit (Pg. 24)
- Translucent, illuminated ball optional

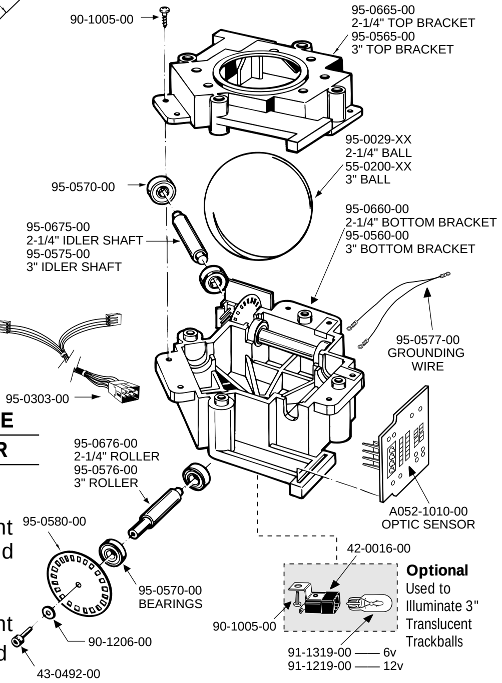

Standard Harness Included (Not Pictured)

2-1/4" and 3" TRACKBALL MOUNTING DIMENSIONS


CONTROL PANEL
F
E
D


H
G (BOLT SIZE)
H
A
C
B

DIM.	2-1/4"	3"
A	2.50"	3.18"
B	2.50"	3.18"
C	3.30"	3.90"
D	2.13"	2.57"
E	2.19"	2.70"
F	2.67"	3.30"
G	#10-24 x 2.25"	#10-24 x 3"
H	5.10"	5.90"


90-1005-00
95-0665-00
2-1/4" TOP BRACKET
95-0565-00
3" TOP BRACKET
95-0029-XX
2-1/4" BALL
55-0200-XX
3" BALL
95-0570-00
95-0660-00
2-1/4" BOTTOM BRACKET
95-0560-00
3" BOTTOM BRACKET
95-0675-00
2-1/4" IDLER SHAFT
95-0575-00
3" IDLER SHAFT
95-0577-00
GROUNDING
WIRE
95-0303-00
95-0676-00
2-1/4" ROLLER
95-0576-00
3" ROLLER
A052-1010-00
OPTIC SENSOR
95-0580-00
42-0016-00
95-0570-00
BEARINGS
90-1005-00
90-1206-00
91-1319-00 — 6v
91-1219-00 — 12v
43-0492-00

Optional Used to Illuminate 3" Translucent Trackballs

COLOR CODE

XX = COLOR

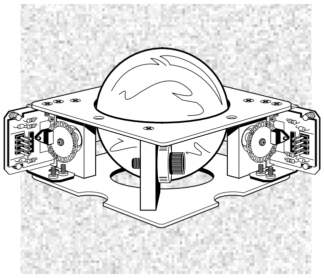
10 = Red Solid
10T = Red Translucent
11 = White Solid
12 = Blue Solid
12T = Blue Translucent
16 = Black Solid

Trackball (Specify Color)

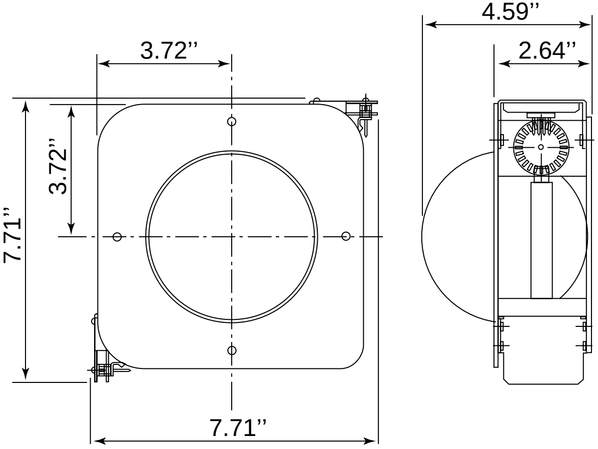
Part Number		Price per ea. 1-5	6+
56-5500-XX	2-1/4" Diameter Trackball with Harness	75.00	70.00
56-0100-XX	3" Diameter Trackball with Harness	80.00	75.00

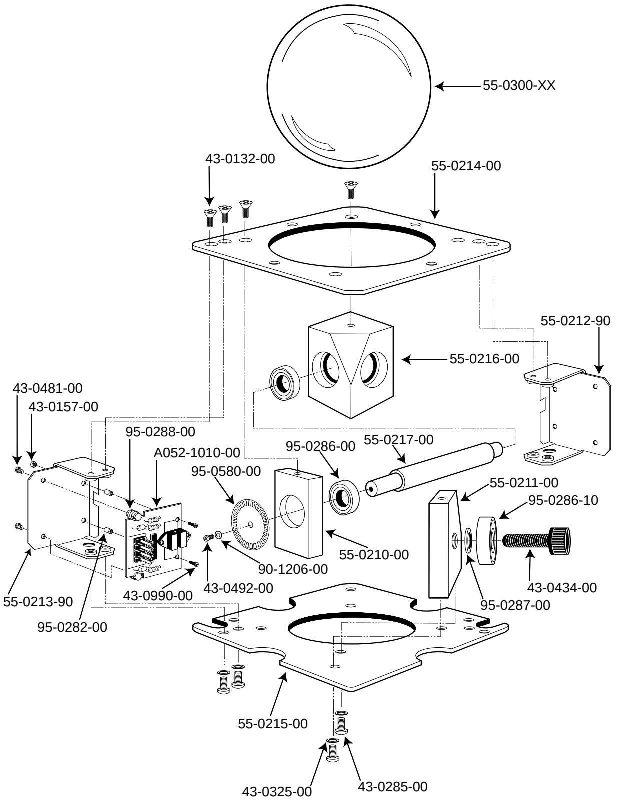
TRACKBALL – 4 1/2" DIAMETER

- Made in U.S.A.
- Durable steel construction
- Allows a new dimension of play with this large trackball
- Custom colors available
- Mounting hardware sold separately



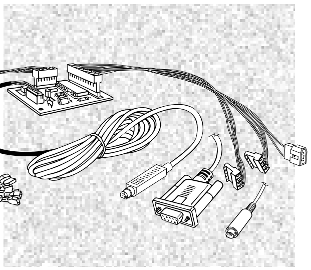
4 1/2" TRACKBALL MOUNTING DIMENSIONS


4.59''
2.64''
3.72''
3.72''
7.71''
7.71''

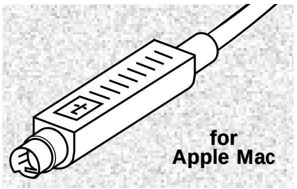

55-0300-XX
43-0132-00
55-0214-00
55-0212-90
55-0216-00
43-0481-00
43-0157-00
95-0288-00
A052-1010-00
95-0286-00
55-0217-00
95-0580-00
55-0211-00
95-0286-10
55-0210-00
90-1206-00
43-0434-00
55-0213-90
43-0990-00
43-0492-00
95-0287-00
95-0282-00
55-0215-00
43-0325-00
43-0285-00

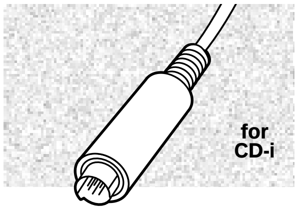
Part Number		Price per ea. 1-5	6+
55-0226-00	4-1/2" Trackball, W/O Ball	125.00	120.00
55-0300-00	4-1/2" Trackball Ball, Red Translucent	40.00	40.00
55-0300-02	4-1/2" Trackball Ball, Blue Translucent	40.00	40.00

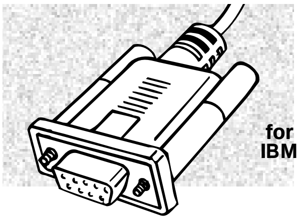
TRACKBALL INTERFACE KIT



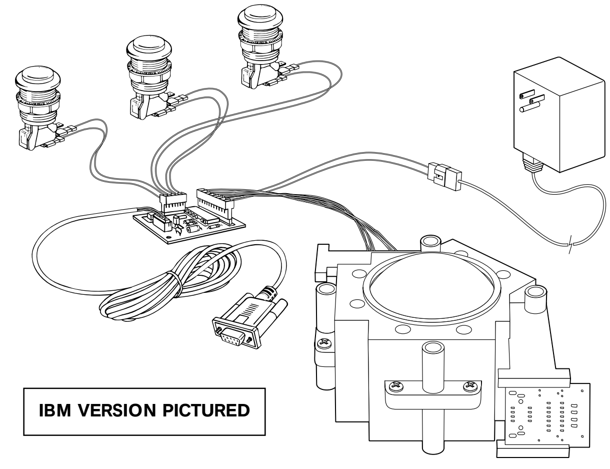
- Allows trackball or steering wheel to interface to Interactive Display or Point of Purchase Kiosk
- Can be used as a heavy-duty alternative to a mouse for interactive displays
- Up to 3 pushbuttons can be interfaced
- Harness complete with connectors
- **Requires external +5v DC 200 ma input (except Apple Macintosh version)**
- Not compatible with Value Point Computers and PS2 (serial only)
- USB Interface also available. See page 22







COMPLETE INTERFACE ASSEMBLY

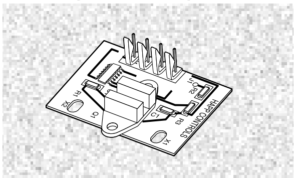


IBM VERSION PICTURED

Part Number		Price per ea. 1-24	25+
56-1000-00	Trackball Interface Kit for IBM Computers – Serial Port	49.95	48.95
56-2000-00	Trackball Interface Kit for Apple Macintosh Computers – ADB Port	90.00	89.50
56-3000-00	Trackball Interface Kit for CD-i	68.00	66.50

PRINTED CIRCUIT BOARD FOR TRACKBALLS

- Schmitt trigger output
- Diode protects circuit from damage



Part Number		Price per ea. 1-5	6+
A052-1010-00	Printed Circuit Board	15.80	14.25

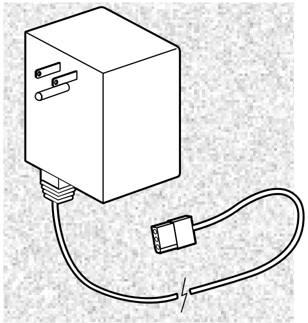
INTERFACE BOARD

USB UNIVERSAL SERIAL BUS

SEE PAGE 22

POWER SUPPLY FOR INTERFACE KITS

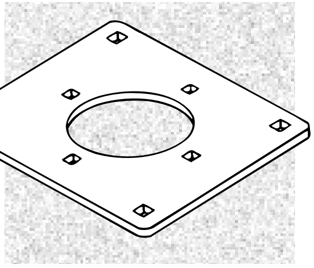
- Supplies the required voltage +5v DC for Trackball Interface Systems
- Simply plug into electrical outlet and connect to Trackball Interface System
- 110VAC input: +5v DC 600 ma output
- Will light +5v DC Illuminated Pushbuttons



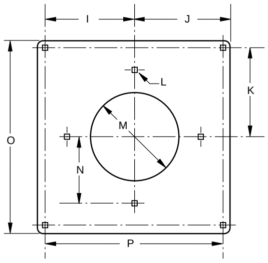
Part Number		Price per ea. 1-24	25+
80-0041-00	Power Supply for Interface Kits	19.00	18.00

TRACKBALL PLATE

- Adapts trackballs to wood control panels
- Available for both 2¼" and 3" trackballs
- Hardware sold separately
- Clear zinc or black painted finish available



2-1/4" and 3" TRACKBALL PLATE MOUNTING DIMENSIONS

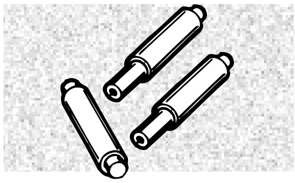


DIM.	2-1/4"	3"
I	2.75"	3.00"
J	3.00"	3.25"
K	2.75"	3.00"
L	.22" SQ. x 8	.22" SQ. x 8
M	2.26"ø	3.00"ø
N	1.75" x 4	2.25" x 4
O	6.00" x 2	6.50" x 2
P	5.50" x 2	6.00" x 2

Part Number		Price per ea. 1-5	6+
56-5530-00	Plate for 3" trackball, clear zinc	5.50	5.25
56-5530-16	Plate for 3" trackball, painted black wrinkle	6.25	6.10
56-5524-00	Plate for 2-1/4" trackball, clear zinc	5.25	4.85
56-5524-16	Plate for 2-1/4" trackball, painted black wrinkle	6.00	5.70
90-1014-00	Carriage bolt 10–24 x 3" black	.20	.15
43-0149-00	Carriage bolt 10–24 x 2" black	.10	.09
90-1204-00	Nut 10–24 hex w/SEMS	.15	.10

ROLLER AND IDLER KITS FOR TRACKBALLS

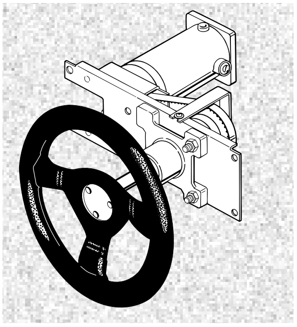
- Kit includes 2 rollers and 1 idler shaft



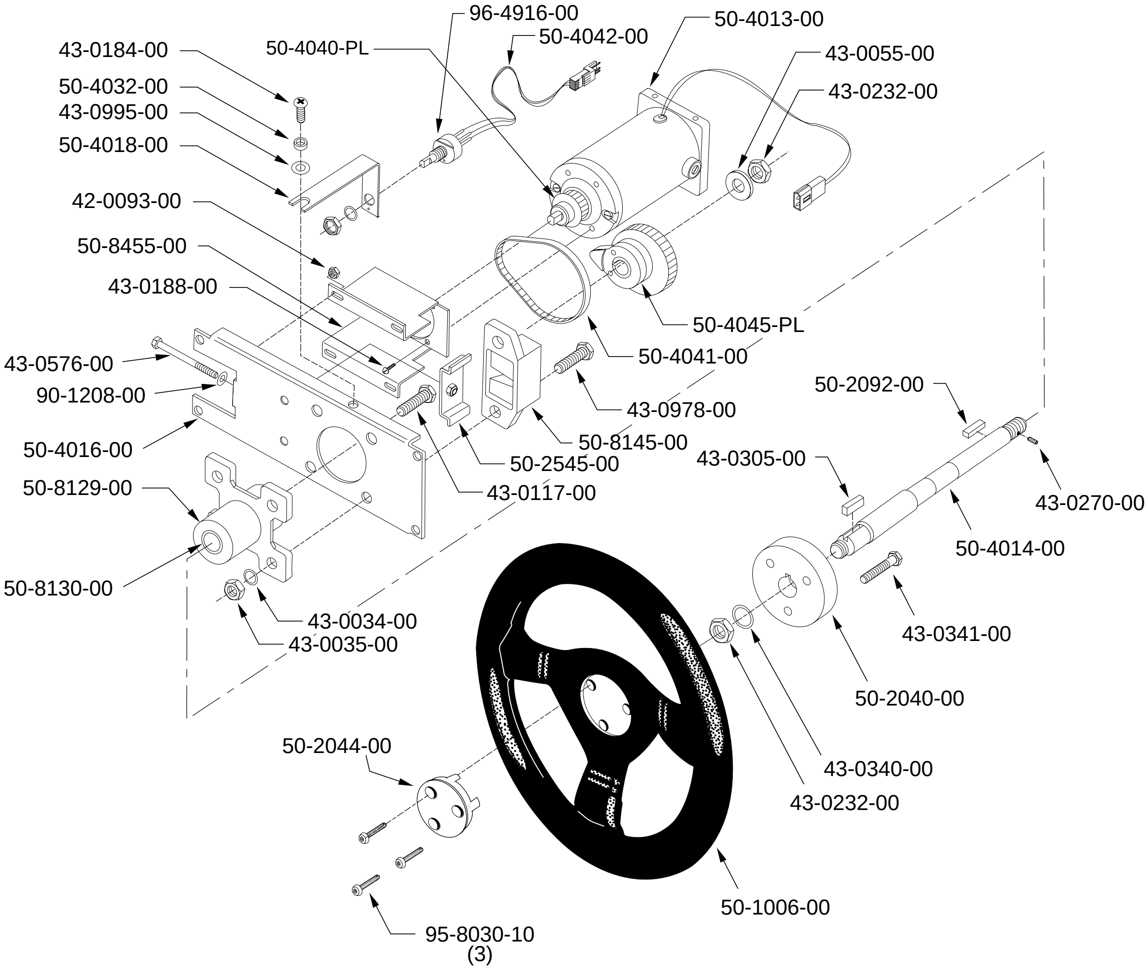
Part Number		Price per ea. 1-5	6+
95-0830-00	Roller and Idler Kit for 2-1/4" Trackball	6.45	5.99
95-0831-00	Roller and Idler Kit for 3" Trackball	6.45	5.99

ACTIVE STEERING WHEEL

- 270° wheel assembly fitted with a strong DC motor to provide realistic feel and feedback
- Requires signals from game board to operate
- Optional control PC board available (50-2000-00)
- This product is manufactured under a technology license agreement with **ATARI GAMES CORPORATION**®

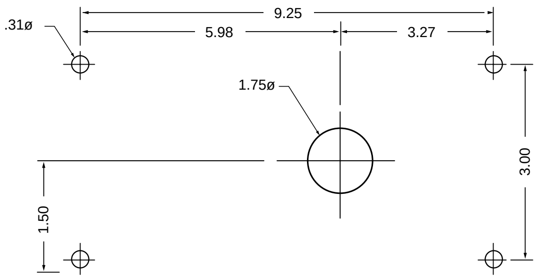


Part Number		Price per ea. 1-5	6+
50-0102-00	270° Active Steering Wheel	400.00	385.00
50-2000-00	Motor Controller for Active Steering Wheel	79.95	75.95



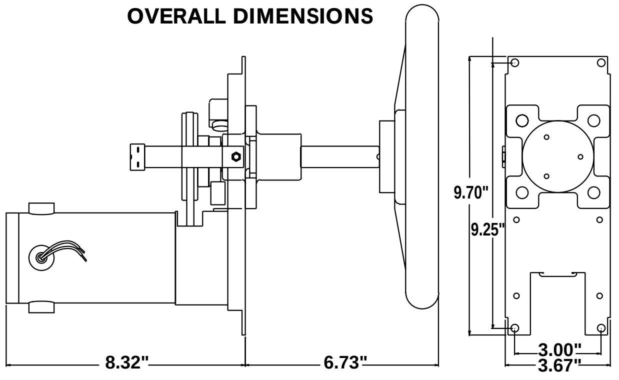
96-4916-00
50-4042-00
50-4013-00
43-0184-00
50-4040-PL
43-0055-00
50-4032-00
43-0995-00
43-0232-00
50-4018-00
42-0093-00
50-8455-00
43-0188-00
50-4045-PL
50-4041-00
43-0576-00
90-1208-00
43-0978-00
50-2092-00
50-4016-00
50-8145-00
50-2545-00
43-0305-00
50-8129-00
43-0117-00
43-0270-00
50-4014-00
50-8130-00
43-0341-00
43-0034-00
43-0035-00
50-2040-00
50-2044-00
43-0340-00
43-0232-00
50-1006-00
95-8030-10
(3)

MOUNTING DIMENSIONS



.31ø
9.25
5.98
3.27
1.75ø
3.00
1.50

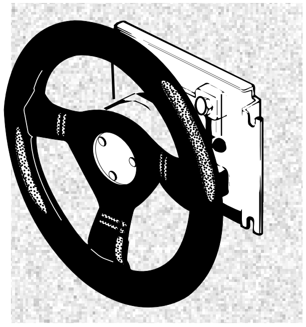
OVERALL DIMENSIONS



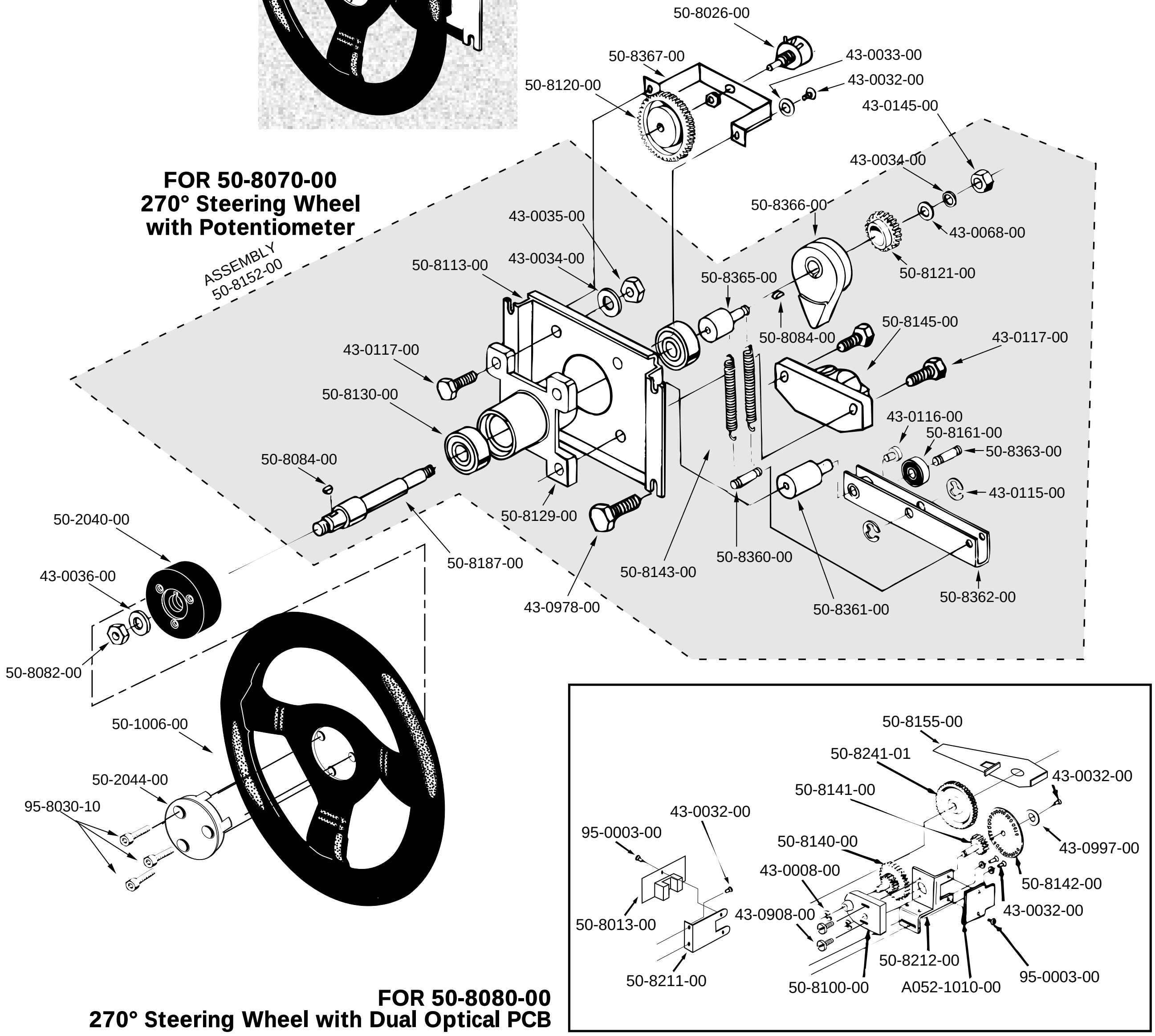
9.70"
9.25"
8.32"
6.73"
3.00"
3.67"

STEERING WHEEL – 270° WHEEL

- Ball bearing construction
- Potentiometer control or encoder
- Standard mounting
- Heavy duty construction
- Black cap fitted as standard



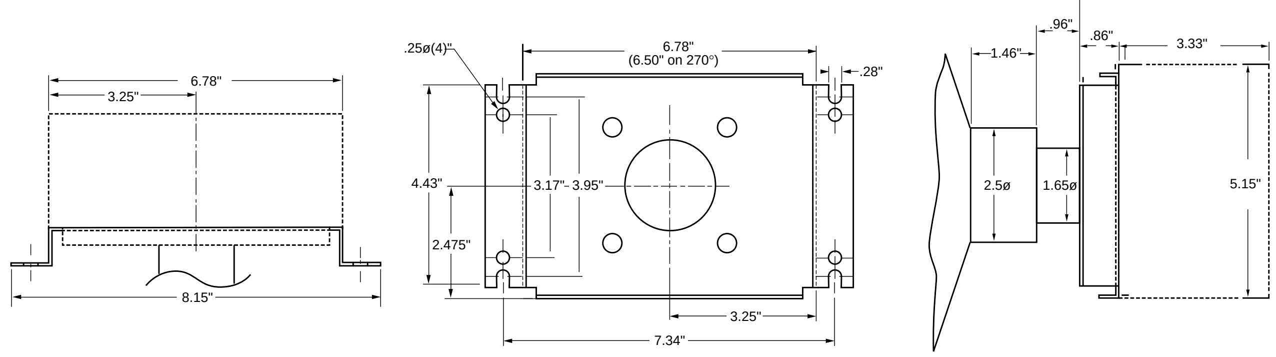
Part Number		Price per ea. 1-5	6+
50-8070-00	270° Steering Wheel with Pot	175.00	160.00
50-8080-00	270° Steering Wheel with Optical	190.00	175.00


50-8026-00
50-8367-00
43-0033-00
43-0032-00
50-8120-00
43-0145-00
43-0034-00
50-8366-00
43-0068-00
43-0035-00
50-8121-00
50-8113-00
43-0034-00
50-8365-00
ASSEMBLY 50-8152-00
50-8145-00
50-8084-00
43-0117-00
43-0117-00
50-8130-00
43-0116-00
50-8161-00
50-8363-00
50-8084-00
43-0115-00
50-8129-00
50-2040-00
50-8187-00
50-8360-00
50-8143-00
43-0036-00
50-8362-00
43-0978-00
50-8361-00
50-8082-00
50-1006-00
50-2044-00
95-8030-10
50-8155-00
50-8241-01
43-0032-00
50-8141-00
43-0032-00
95-0003-00
43-0997-00
50-8140-00
43-0008-00
50-8142-00
43-0032-00
50-8013-00
43-0908-00
50-8212-00
95-0003-00
50-8211-00
50-8100-00
A052-1010-00

FOR 50-8070-00
270° Steering Wheel with Potentiometer

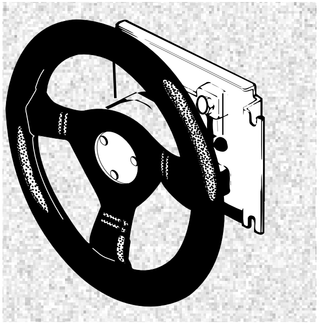
FOR 50-8080-00
270° Steering Wheel with Dual Optical PCB

270° WHEEL MOUNTING DIMENSIONS

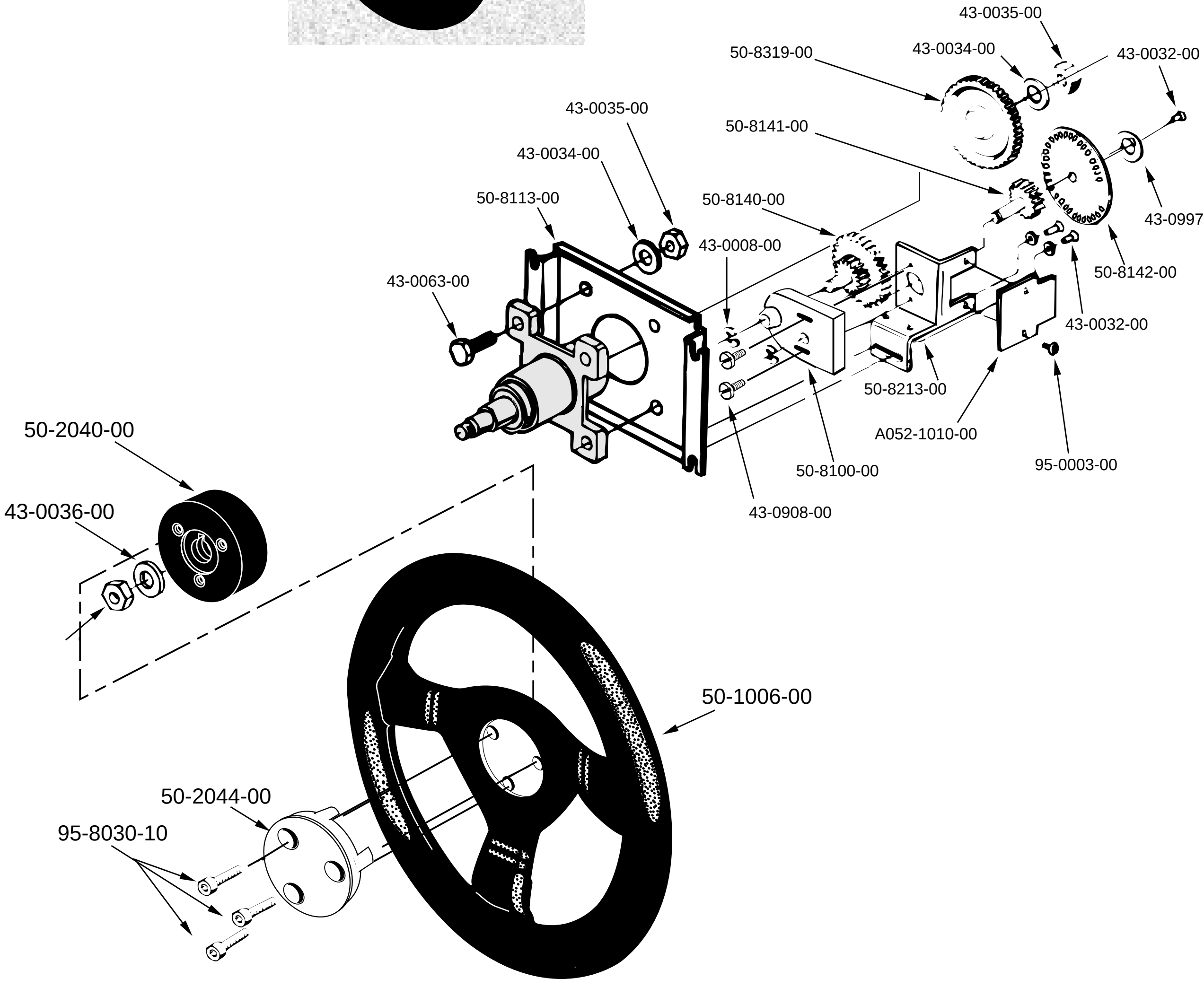

6.78"
3.25"
8.15"
.25ø(4)
6.78"
(6.50" on 270°)
.28"
4.43"
3.17"
3.95"
2.475"
3.25"
7.34"
BACK OF CONTROL PANEL
.96"
1.46"
.86"
3.33"
2.5ø
1.65ø
5.15"

STEERING WHEEL – 360° WHEEL

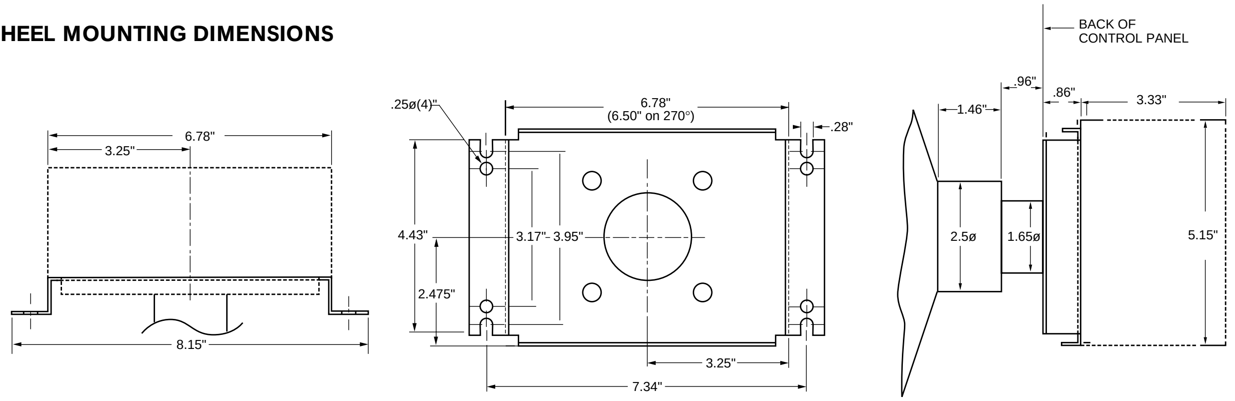
- Ball bearing construction
- Optical control
- Standard mounting
- Heavy duty construction
- Black cap fitted as standard



Part Number		Price per ea. 1-5	6+
50-8245-00	360° Steering Wheel	125.00	115.00

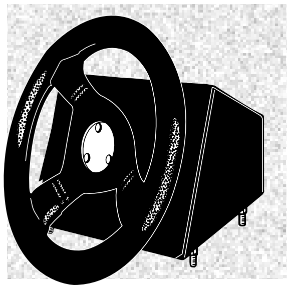

43-0035-00
50-8319-00
43-0034-00
43-0032-00
43-0035-00
50-8141-00
43-0034-00
50-8113-00
50-8140-00
43-0997-00
43-0008-00
43-0063-00
50-8142-00
43-0032-00
50-8213-00
A052-1010-00
95-0003-00
50-8100-00
43-0908-00
50-2040-00
43-0036-00
50-1006-00
50-2044-00
95-8030-10

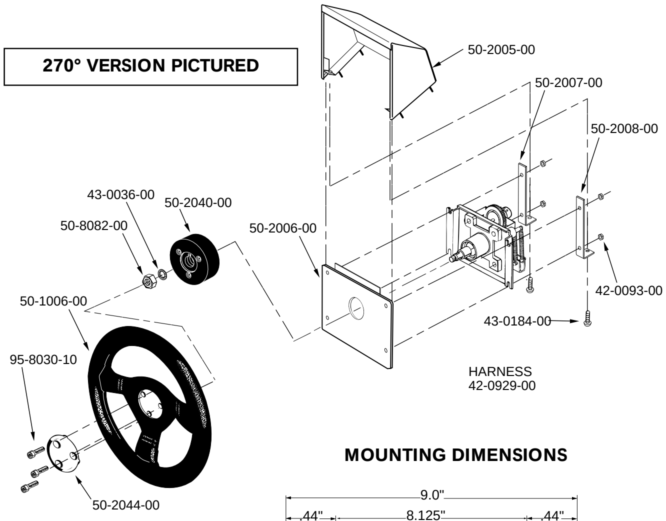
360° WHEEL MOUNTING DIMENSIONS


6.78"
3.25"
8.15"
.25ø(4)"
6.78"
(6.50" on 270°)
.28"
4.43"
3.17"
3.95"
2.475"
3.25"
7.34"
BACK OF
CONTROL PANEL
.96"
.86"
1.46"
3.33"
2.5ø
1.65ø
5.15"

360°/270° MODULAR STYLE STEERING WHEEL ASSEMBLY

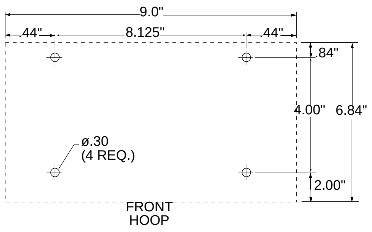
- Self-contained for surface mount to most any cabinet
- Includes harness
- Will fit any non-active steering type assemblies (270°/360°)




50-2005-00
50-2007-00
50-2008-00
43-0036-00
50-2040-00
50-8082-00
50-2006-00
50-1006-00
42-0093-00
43-0184-00
95-8030-10
HARNESS
42-0929-00
50-2044-00

270° VERSION PICTURED

MOUNTING DIMENSIONS


9.0"
.44"
8.125"
.44"
.84"
4.00"
6.84"
ø.30
(4 REQ.)
2.00"
FRONT
HOOP

Part Number		Price per ea. 1-5	6+
50-0194-06	270° Modular Steering Wheel	206.00	190.00
50-1026-06	360° Modular Steering Wheel	157.00	145.00

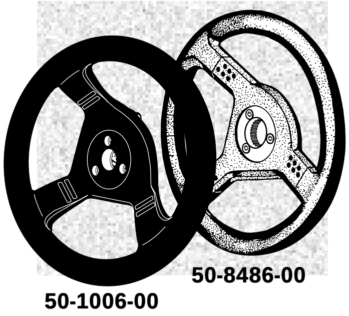
STEERING WHEEL HOOPS

European Design

- 10.25" in diameter
- Simulated leather look
- Molded in durable hard black plastic
- European inspired design

Standard Design

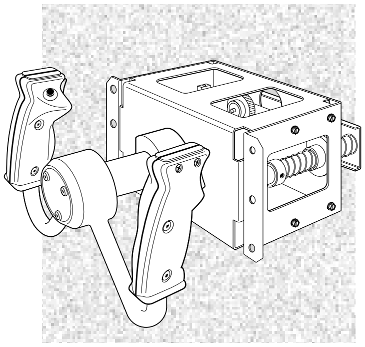
- 10.25” in diameter
- Molded in durable hard plastic
- Black cap fitted as standard


50-8486-00
50-1006-00

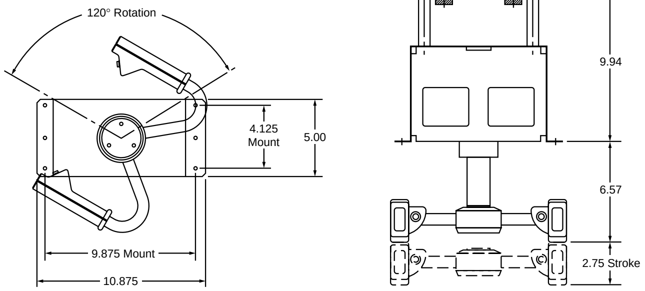
Part Number		Price per ea. 1-5	6+
50-1006-00	European Design	32.00	29.00
50-8486-00	Standard Design	32.00	29.00

FLIGHT YOKE

- Designed to simulate aircraft yoke
- Rugged construction
- Each grip contains trigger and thumbswitch
- Potentiometers, 100k fitted as standard, sense both the rotation (roll) and axial stroke (pitch)



MOUNTING DIMENSIONS

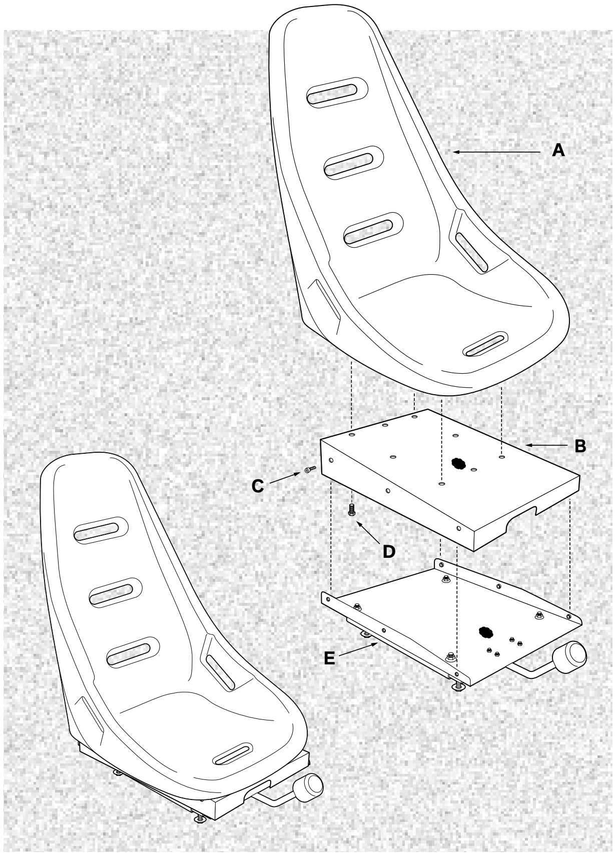

120° Rotation
4.125
Mount
5.00
9.875 Mount
10.875
9.94
6.57
2.75 Stroke

Part Number		
50-8105-00	Flight Yoke	Call for pricing

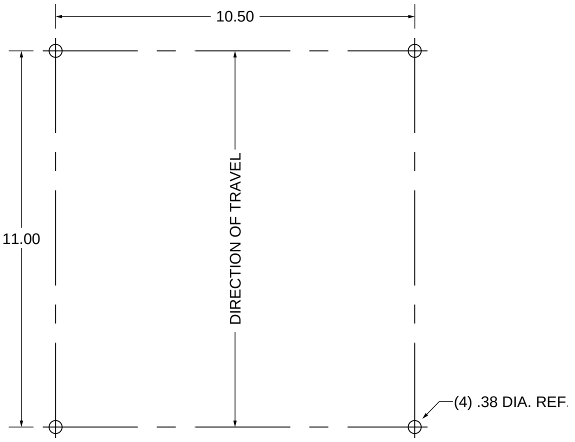
Visit Our Web Site:
for *NEW* Product Updates!!

SEAT SLIDE ASSEMBLY

- Allows player a full range of seat adjustment positions to allow adjustment for all size of players
- Precise heavy-duty metal construction of slide rails provide trouble-free operation
- Large white knob extends from seat slide base to allow easy adjustment while sitting
- 4" range of travel



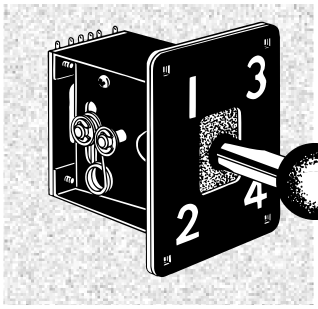
MOUNTING DIMENSIONS


10.50
11.00
DIRECTION OF TRAVEL
(4) .38 DIA. REF.

Part Number	Key		Price per ea.
49-0501-00	A	Black Plastic Seat	175.00
49-0502-00	B	Seat Mounting Base for Seat Slide	90.00
43-0347-00	C	T-27 Torx Screw for Seat Slide	.45
43-0366-00	D	Seat Anchor Screw for Seat Slide	.10
50-2990-00	E	Seat Slide Lower Assembly	90.00

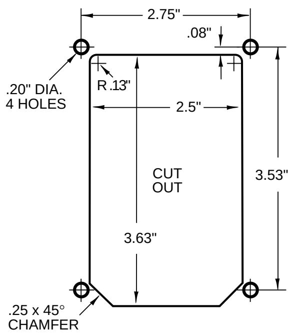
4-SPEED SHIFTER

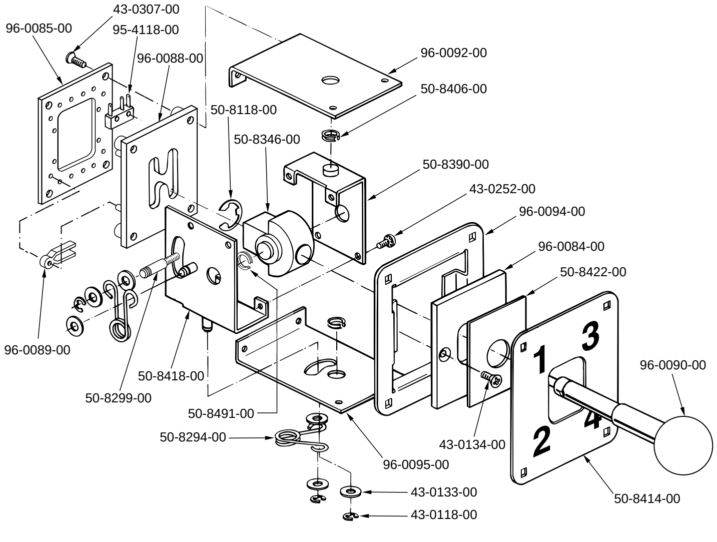
- 4-speed gated shifter
- Black insert molded shift knob
- 4 gold contact CHERRY microswitches



Part Number		Price per ea. 1-5	6+
50-8496-00	4-Speed Shifter	100.00	90.00

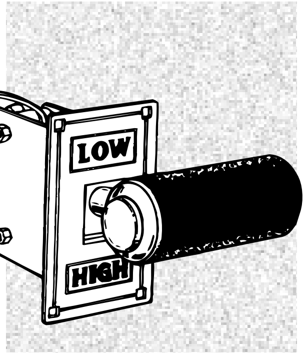
MOUNTING DIMENSIONS FOR 4-SPEED SHIFTER

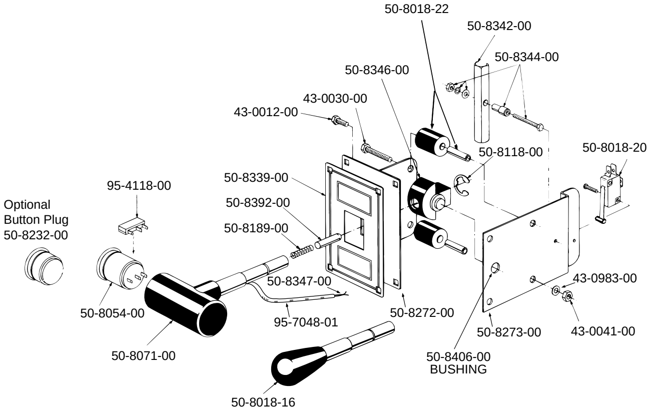

2.75"
.08"
.20" DIA.
4 HOLES
R .13"
2.5"
CUT
OUT
3.53"
3.63"
.25 x 45°
CHAMFER


43-0307-00
96-0085-00
95-4118-00
96-0088-00
96-0092-00
50-8406-00
50-8118-00
50-8346-00
50-8390-00
43-0252-00
96-0094-00
96-0084-00
50-8422-00
1
3
2
4
96-0090-00
96-0089-00
50-8418-00
50-8299-00
50-8491-00
50-8294-00
43-0134-00
96-0095-00
43-0133-00
43-0118-00
50-8414-00

TURBO SPEED SHIFTER

- High-Low Speed Shift with microswitch in handle actuated by large diameter pushbutton to enable Turbo feature

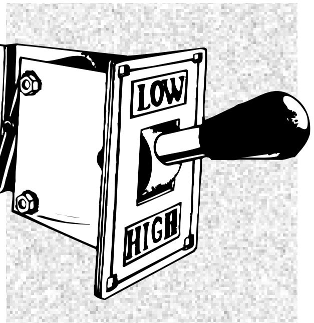



50-8018-22
50-8342-00
50-8344-00
50-8346-00
43-0030-00
43-0012-00
50-8118-00
50-8018-20
95-4118-00
50-8339-00
Optional
Button Plug
50-8232-00
50-8392-00
50-8189-00
50-8347-00
43-0983-00
50-8054-00
95-7048-01
50-8272-00
50-8273-00
43-0041-00
50-8071-00
50-8406-00
BUSHING
50-8018-16

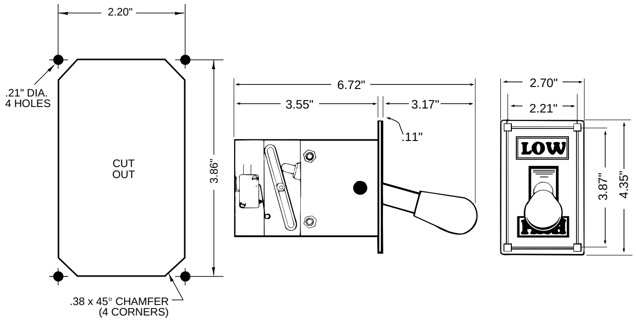
Part Number		Price per ea.	1-5	6+
50-8017-00	Turbo Speed Shifter		44.00	40.00

SPEED SHIFTER

- Knob molded onto steel shaft
- Microswitch operation
- 2 position



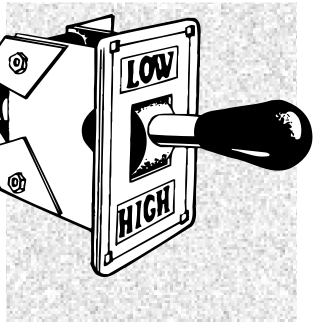
MOUNTING DIMENSIONS FOR SHIFTER WITH STANDARD HANDLE

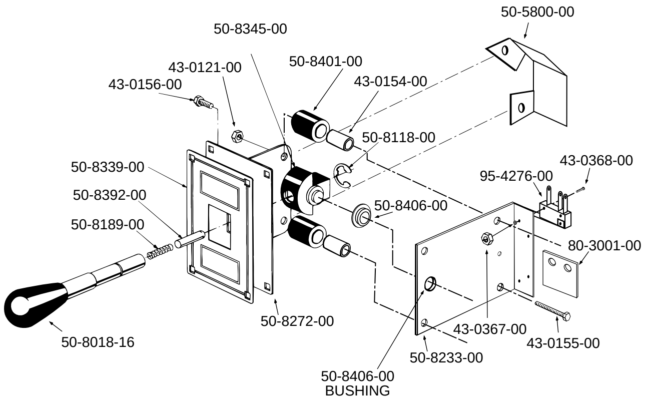

2.20"
.21" DIA.
4 HOLES
CUT
OUT
3.86"
.38 x 45° CHAMFER
(4 CORNERS)
6.72"
3.55"
3.17"
.11"
2.70"
2.21"
LOW
3.87"
4.35"

Part Number		Price per ea.	1-5	6+
50-8018-00	Speed Shifter		35.00	33.00

UP/DOWN SHIFTER

- For multi-speed applications
- Makes switch contact in low and in high position and returns to center
- Available with handle with or without thumb switch

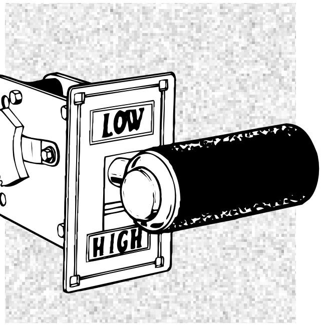



50-5800-00
50-8345-00
43-0121-00
50-8401-00
43-0156-00
43-0154-00
50-8118-00
43-0368-00
50-8339-00
95-4276-00
50-8392-00
50-8406-00
50-8189-00
80-3001-00
50-8272-00
43-0367-00
50-8018-16
43-0155-00
50-8233-00
50-8406-00
BUSHING

Part Number		Price per ea.	1-5	6+
50-8110-00	Up/Down Shifter		40.00	37.00

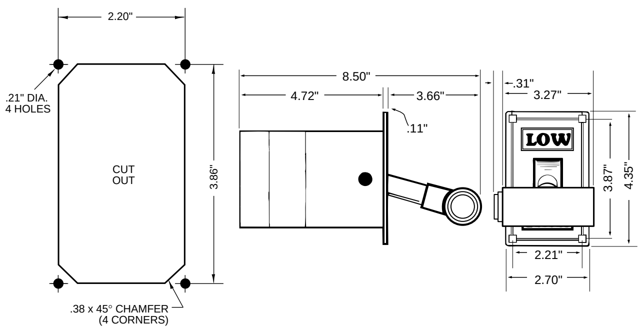
TURBO THROTTLE

- Produces 0 to 5k ohm signal proportional to lever position
- Lever has friction to remain where last set

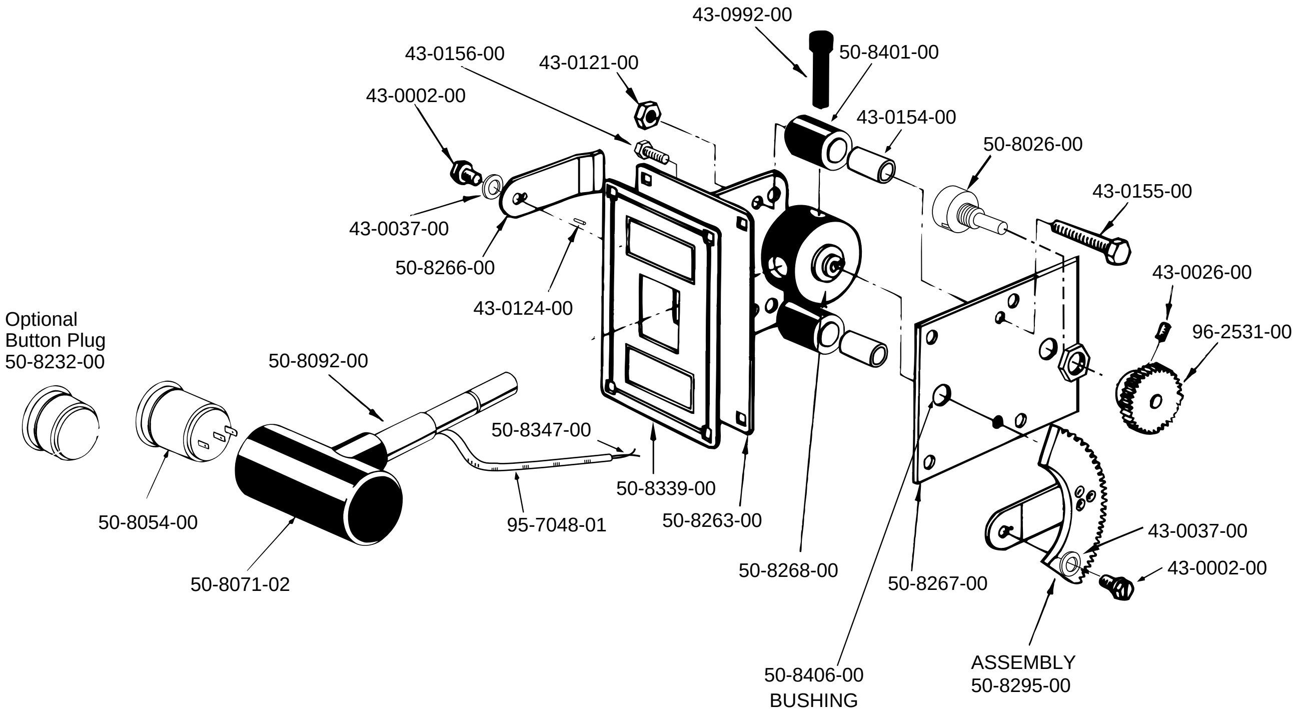


Part Number		Price per ea. 1-5	6+
50-8184-00	Turbo Throttle	80.00	75.00

MOUNTING DIMENSIONS FOR SHIFTER WITH TURBO HANDLE



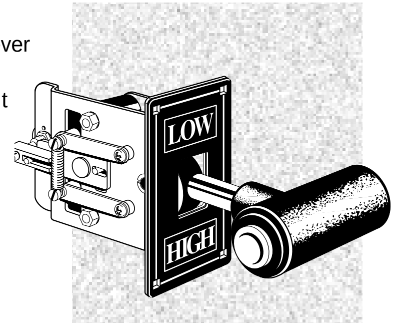
2.20"
.21" DIA.
4 HOLES
CUT OUT
3.86"
.38 x 45° CHAMFER
(4 CORNERS)
8.50"
4.72"
3.66"
.11"
.31"
3.27"
LOW
3.87"
4.35"
2.21"
2.70"



43-0992-00
43-0156-00
43-0121-00
50-8401-00
43-0002-00
43-0154-00
50-8026-00
43-0155-00
43-0037-00
50-8266-00
43-0026-00
43-0124-00
96-2531-00
Optional
Button Plug
50-8232-00
50-8092-00
50-8347-00
50-8339-00
50-8054-00
95-7048-01
50-8263-00
43-0037-00
43-0002-00
50-8268-00
50-8267-00
50-8071-02
50-8406-00
BUSHING
ASSEMBLY
50-8295-00

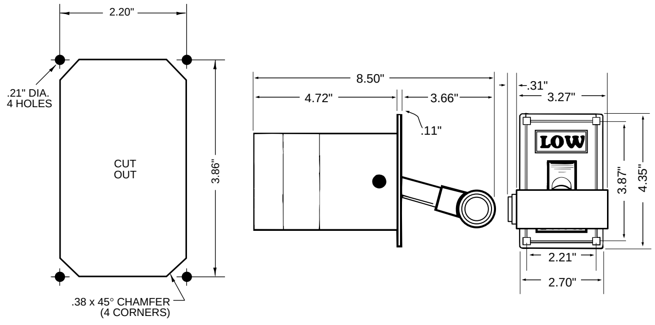
TURBO THROTTLE RETURN TO CENTER

- Produces 0 to 5k ohm signal proportional to lever position
- Available with or without thumb switch



Part Number		Price per ea. 1-5	6+
50-0083-00	Turbo Throttle Return to Center	60.00	57.00

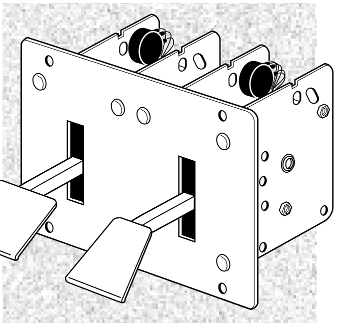
MOUNTING DIMENSIONS FOR TURBO THROTTLE RETURN TO CENTER



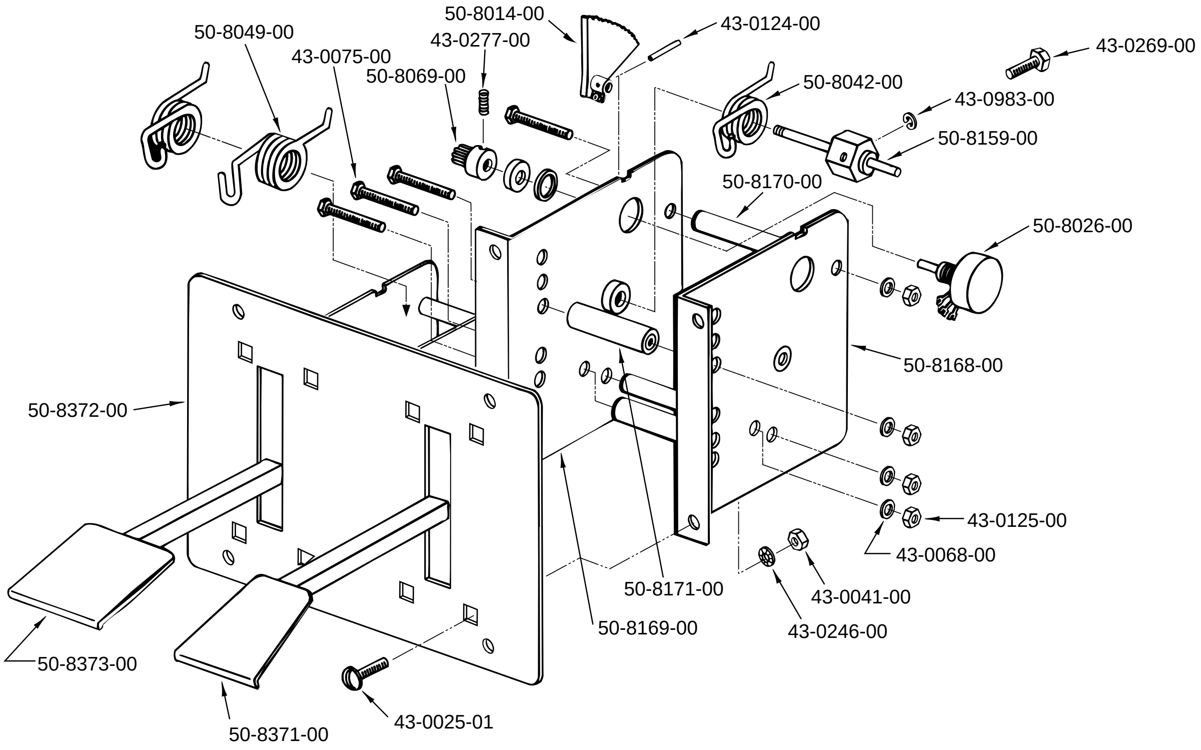
2.20"
.21" DIA.
4 HOLES
CUT OUT
3.86"
.38 x 45° CHAMFER
(4 CORNERS)
8.50"
4.72"
3.66"
.11"
.31"
3.27"
LOW
3.87"
4.35"
2.21"
2.70"

DUAL PEDAL

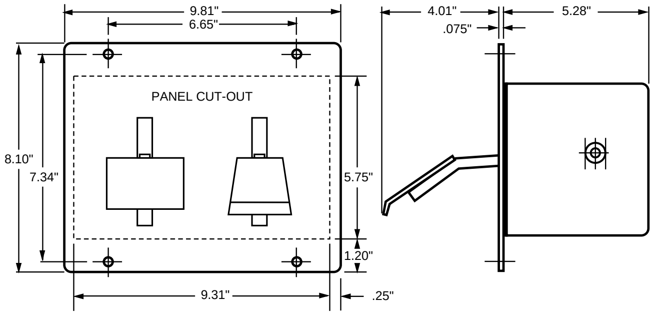
- Steel construction
- Dual pot construction, pot. on gas and brake
- Other microswitch or pot. combinations available



Part Number		Price per ea. 1-5	6+
50-8060-01	Dual Pedal with Dual Pots	133.00	120.00

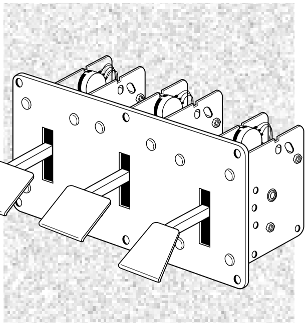

50-8014-00
43-0124-00
50-8049-00
43-0277-00
43-0269-00
43-0075-00
50-8069-00
50-8042-00
43-0983-00
50-8159-00
50-8170-00
50-8026-00
50-8168-00
50-8372-00
43-0125-00
43-0068-00
50-8171-00
43-0041-00
50-8169-00
43-0246-00
50-8373-00
43-0025-01
50-8371-00

MOUNTING DIMENSIONS

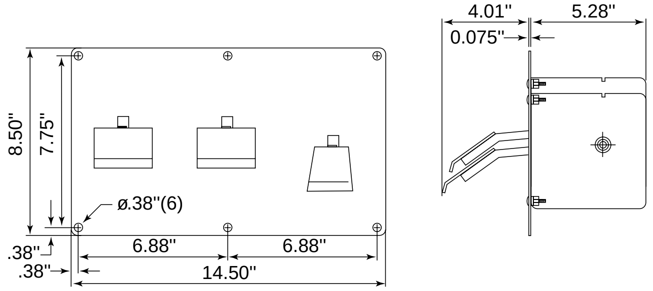

9.81"
6.65"
PANEL CUT-OUT
8.10"
7.34"
5.75"
1.20"
9.31"
.25"
4.01"
.075"
5.28"

TRIPLE PEDAL

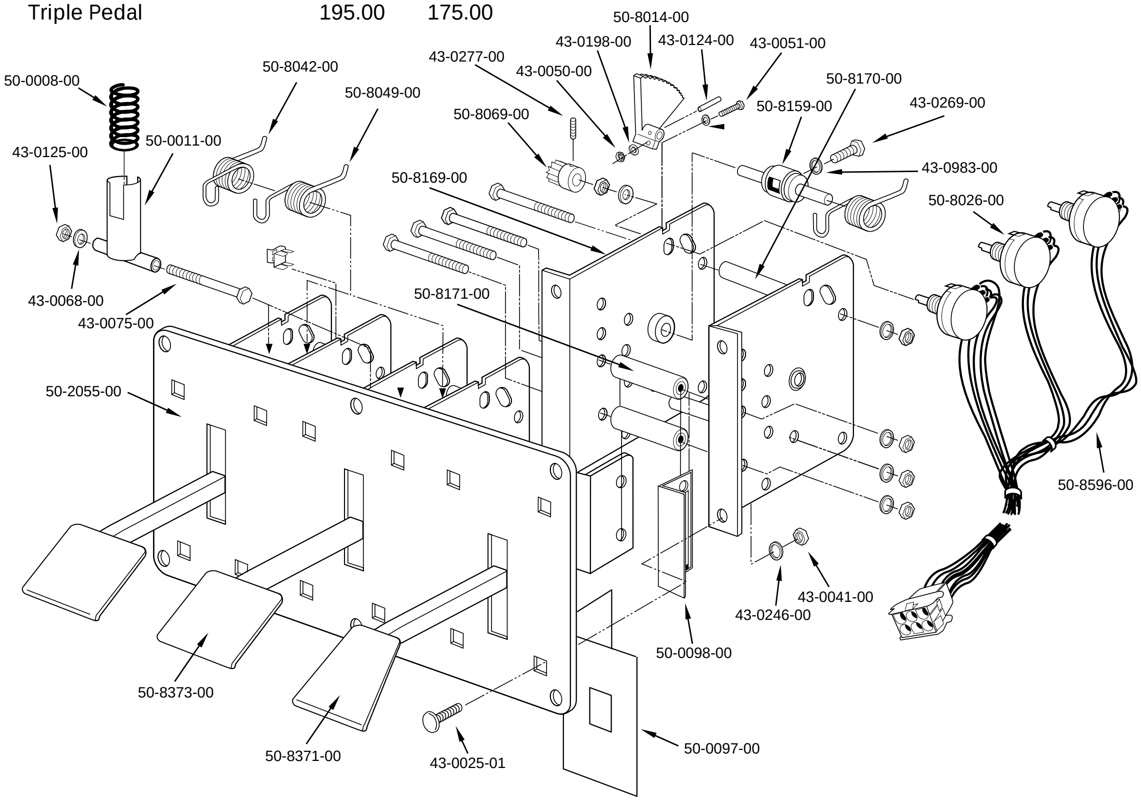
- Steel construction
- Triple pot construction
- Allows for realistic driving simulation using gas, clutch and brake
- Pedal dampener to allow for realistic clutch function
- Microswitch or pots available



MOUNTING DIMENSIONS

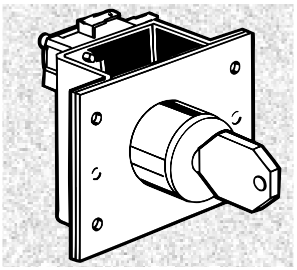

4.01"
5.28"
0.075"
8.50"
7.75"
ø.38"(6)
.38"
.38"
6.88"
6.88"
14.50"

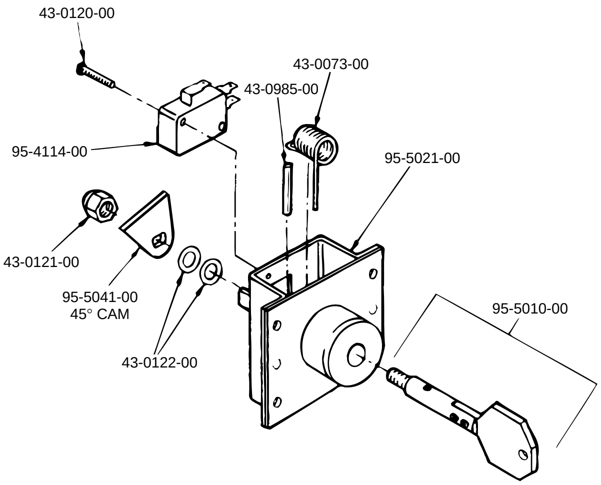
Part Number		Price per ea. 1-5	6+
50-8595-00	Triple Pedal	195.00	175.00


50-8014-00
43-0198-00
43-0124-00
43-0051-00
43-0277-00
43-0050-00
50-8042-00
50-8170-00
50-0008-00
50-8049-00
50-8159-00
43-0269-00
50-8069-00
43-0125-00
50-0011-00
43-0983-00
50-8169-00
50-8026-00
43-0068-00
43-0075-00
50-8171-00
50-2055-00
50-8596-00
43-0041-00
43-0246-00
50-0098-00
50-8373-00
50-8371-00
43-0025-01
50-0097-00

KEY SWITCH

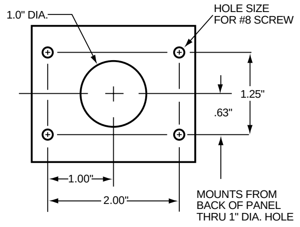
- Simulates automobile ignition switch
- Durable steel construction
- Ideal for any driving game




43-0120-00
43-0073-00
43-0985-00
95-4114-00
95-5021-00
43-0121-00
95-5041-00
45° CAM
43-0122-00
95-5010-00

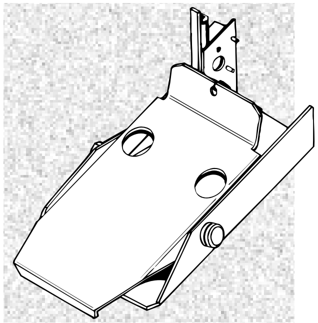
Part Number		Price per ea. 1-5	6+
50-6003-00	45° Key Switch	30.95	27.75

MOUNTING DIMENSIONS

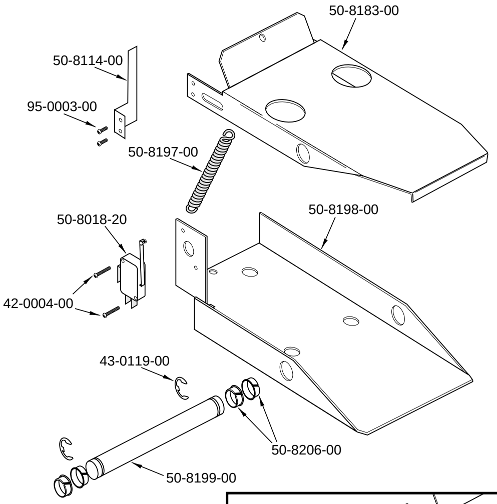

1.0" DIA.
HOLE SIZE FOR #8 SCREW
1.25"
.63"
1.00"
2.00"
MOUNTS FROM BACK OF PANEL THRU 1" DIA. HOLE

FLAT PEDAL

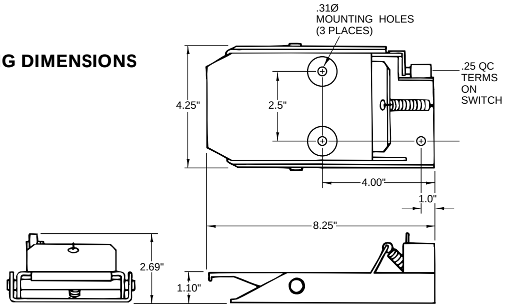
- Steel construction
- With microswitch or with potentiometer
- Simple and compact
- Easy to mount



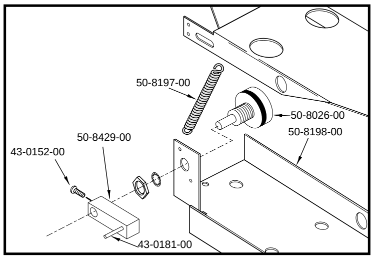
Part Number		Price per ea. 1-5	6+
50-8195-00	Flat Pedal with Microswitch	32.00	29.00
50-8195-01	Flat Pedal with Potentiometer	47.80	42.25
50-8197-00	Spring for Flat Pedal	2.90	2.70


50-8183-00
50-8114-00
95-0003-00
50-8197-00
50-8198-00
50-8018-20
42-0004-00
43-0119-00
50-8206-00
50-8199-00

MOUNTING DIMENSIONS

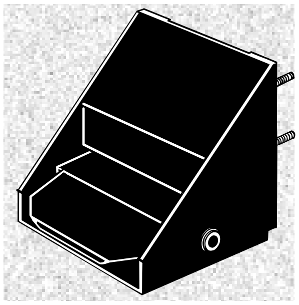

.31Ø MOUNTING HOLES (3 PLACES)
.25 QC TERMS ON SWITCH
4.25"
2.5"
4.00"
1.0"
8.25"
2.69"
1.10"

FLAT PEDAL WITH POTENTIOMETER

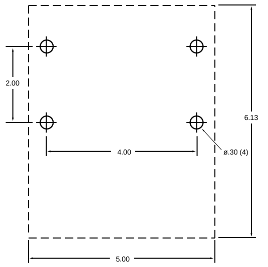

50-8197-00
50-8026-00
50-8198-00
50-8429-00
43-0152-00
43-0181-00

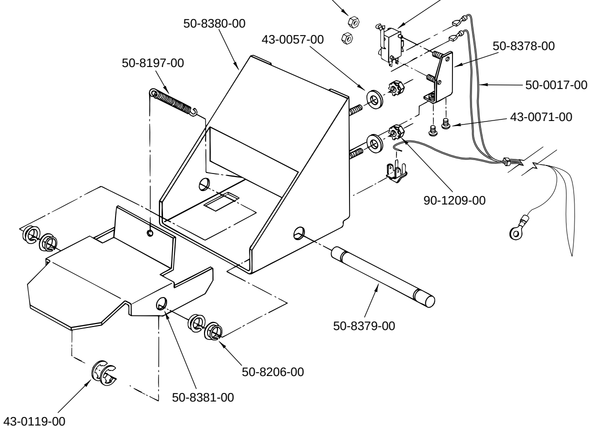
KIT STYLE PEDAL

- Steel construction
- Self contained housing for front cabinet mounting



MOUNTING DIMENSIONS

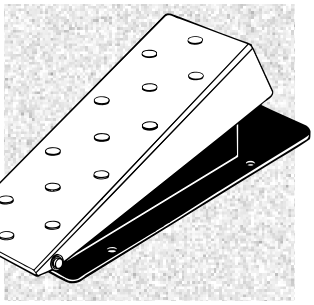

2.00
6.13
4.00
ø.30 (4)
5.00


43-0157-00
50-8018-19
50-8380-00
43-0057-00
50-8378-00
50-8197-00
50-0017-00
43-0071-00
90-1209-00
50-8379-00
50-8206-00
50-8381-00
43-0119-00

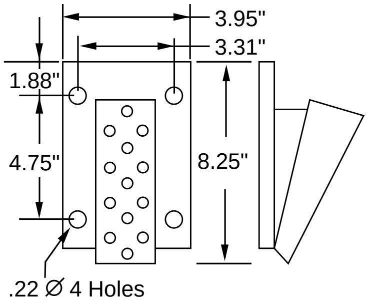
Part Number		Price per ea. 1-5	6+
50-8400-00	Kit Style Pedal with Microswitch	56.00	50.00

MODULAR PEDAL

- Steel construction
- With microswitch or with potentiometer
- Suitable for exposed location



MOUNTING DIMENSIONS

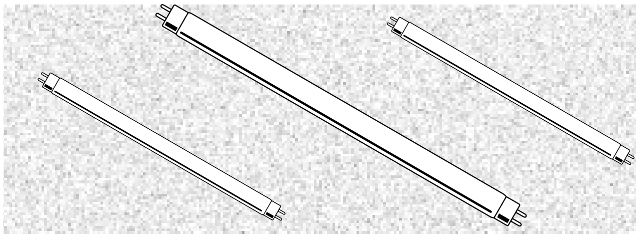

3.95"
3.31"
1.88"
4.75"
8.25"
.22 ⌀ 4 Holes

Part Number		Price per ea. 1-5	6+
50-8194-00	Modular Pedal with Microswitch	45.00	40.00
50-8194-02	Modular Pedal with Potentiometer	45.00	40.00

FLUORESCENT LAMPS

- Highlight your products with these top quality fluorescent lamps
- Top quality name brands
- Sold in case quantities only

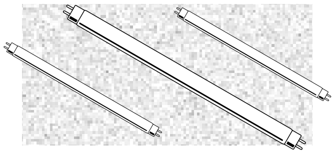
NEW AND IMPROVED BULB PACKAGING
ELIMINATES BULB BREAKAGE CAUSED DURING SHIPMENT
WE WILL GUARANTEE IT!



Part Number	Fluorescent	Watts	Length	Case Qty.	Ea. Price L/1 Case	Ea. Price L/3 Cases
91-3000-00	F4T5/CW	4	6"	25	2.25	1.99
91-3001-00	F6T5/CW	6	9"	24	2.09	1.69
91-3002-00	F8T5/CW	8	12"	25	1.58	1.45
91-1238-00	F8T5/BLB	8	12"	24	8.99	8.49
91-3004-00	F13T5/CW	13	21"	24	3.89	3.39
91-3005-00	F13T8/CW	13	12"	24	5.09	4.59
91-3006-00	F14T8/CW	14	15"	24	2.60	2.39
91-1113-00	F14T12/CW	14	13.5"	24	2.59	2.29
91-3008-00	F15T8/CW	15	18"	24	1.33	1.22
91-3042-00	F15T8/D	15	18"	24	2.49	1.99
91-3018-00	F15T8/BLB	15	18"	6	7.19	6.69
91-0910-00	F15T8/SP30	15	18"	24	12.99	12.29
91-3043-00	F15T12/D	15	18"	30	3.49	2.47
91-0911-00	F15T12/CW	15	18"	6	3.19	2.69
91-3009-00	F18T8/CW/K/24 F24T8/CW/4	18	24"	24	2.69	2.19
91-3010-00	F18T8/CW/K/26 F26T8/CW	18	26"	24	2.79	2.29
91-3011-00	F18T8/CW/K/28 F28T8/CW/4	18	28"	24	2.32	2.14
91-3012-00	F18T8/CW/K/30 F30T8/CW/4	18	30"	24	2.23	2.04
91-0652-00	F20T12/BLB	20	24"	6	9.65	8.85
91-3013-00	F20T12/CW	20	24"	24	2.29	1.79
91-3019-00	F20T12/CW/26	20	26"	30	4.19	3.69
91-3014-00	F20T12/D	20	24"	24	3.19	2.69
91-3015-00	F20T12/D/22	20	22"	30	3.69	3.19
91-0652-00	F20T12/BLB	20	24"	6	9.65	8.85
91-0012-00	F22T8/CW/26	22	26"	24	6.79	6.25
91-0669-00	F22T8/D/24	18	22"	24	3.25	2.99
91-0655-00	F25T8/SPX30	25	36"	24	5.74	5.26
91-3016-00	F25T12/D/28	25	28"	24	3.39	2.89
91-3017-00	F25T12/CW/28	25	28"	24	2.40	2.20
91-3039-00	F25T12/CW/30	25	30"	24	2.64	2.42
91-0666-00	F25T12/WW/33	25	33"	24	7.07	6.48
91-3020-00	F25T12/CW/33	25	33"	30	2.99	2.49
91-3025-00	F25T12/D/33	25	33"	24	3.19	2.69

FLUORESCENT LAMPS

- Top Quality
- Made by Toshiba or Wiko
- Sold by the case only



Part Number	Fluorescent/Length	Watts	Case Qty	Price Ea. L/1 Case
Toshiba:				
91-0007-00	F4T5CW/6"	4	100	1.69
91-0008-00	F6T5CW/9"	6	100	1.69
91-0009-00	F8T5CW/12"	8	100	1.69
91-0011-00	F10T8CW/14"	10	25	3.99
91-0010-00	F15T8CW/18"	15	25	1.99
Wiko:				
91-0023-00	F14T8CW/15"	14	25	1.89

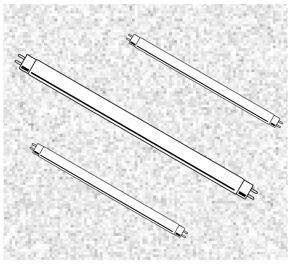
Part Number	Fluorescent	Watts	Length	Case Qty.	Ea. Price L/1 Case	Ea. Price L/3 Cases
91-0931-00	F26T8/CW/4	19	26"	24	3.93	3.82
91-3021-00	F30T8/CW	30	36"	24	2.30	2.10
91-3022-00	F30T12/CW/RS	30	36"	30	4.09	3.59
91-3023-00	F30T12/D/RS	30	36"	30	2.12	1.95
91-3024-00	F32T8/SP41	32	48"	36	3.49	2.99
91-1185-00	F36T12/CW/SP	30	36"	30	6.99	6.49
91-3051-00	F40T8/SP41	40	60"	24	4.99	4.49
91-3050-00	F40T10CW	40	48"	25	6.49	5.95
91-0958-00	F40BLB	40	48"	6	9.76	8.95
91-3026-00	F40/CW/U3	40	24"	12	8.49	7.99
91-3027-00	F40/CWX* (T-12)	40	48"	30	1.99	1.49
91-3028-00	F40DX** (T-12)	40	48"	30	2.09	1.59
91-0955-00	F42T6/CW/SP	25	42"	24	11.44	10.40
91-1188-00	F42T12/CW	36	42"	30	8.39	7.89
91-3052-00	F48T12/D-SP	40	48"	24	3.99	3.49
91-1243-00	F60T12/CW	50	60"	15	5.29	4.79
91-3029-00	F60T12/D-SP	50	60"	15	4.59	4.09
91-0668-00	F64T12/CW	50	64"	15	5.69	5.21
91-3030-00	F64T12/D-SP	52	64"	30	4.99	4.49
91-3031-00	F72T12D-SP	55	72"	15	3.23	2.97
91-3032-00	F72T12/CW-SP	56	72"	15	4.59	4.09
91-0666-00	F72T12/WW	25	33"	24	7.07	6.48
91-3033-00	F96T12/CW-SP***	60	96"	15	4.99	4.49

SP= Single Pin
* Replacement for F40CW
** Replacement for F40D
*** F96 lamps shipped by truck only

HIGH OUTPUT FLUORESCENT LAMPS

- Extra bright illumination increases the attractiveness of your machines, creating more demand for your products
- All high output lamps are recessed double pin contacts
- Top quality name brands
- Sold in case quantities only

NEW AND IMPROVED BULB PACKAGING
ELIMINATES BULB BREAKAGE CAUSED DURING SHIPMENT
WE WILL GUARANTEE IT!

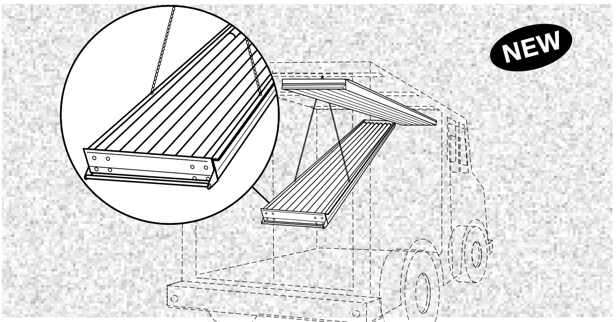


Part Number	Fluorescent	Watts	Length	Case Qty.	Ea. Price L/1 Case	Ea. Price L/3 Cases
91-0664-00	F18T12/CW/HO	25	18"	24	5.28	4.85
91-1175-00	F24T12/CW/HO	35	24"	30	5.19	4.69
91-0909-00	F48T12/CW/HO	60	48"	24	4.79	4.29
91-0908-00	F60T12/CW/HO	75	60"	15	5.99	5.49
91-3034-00	F64T12/CW/HO	80	64"	15	6.19	5.19
91-3035-00	F64T12/D/HO	80	64"	15	4.54	4.17
91-0022-00	F72T12/CW/HO	85	72”	15	4.22	3.86
91-3036-00	F72T12/D/HO	85	72"	15	4.45	3.75
91-0022-00	F72T12/CW/HO	85	72"	15	4.22	3.86
91-3040-00*	F96T12/CW/HO/CT	110	96"	15	4.99	4.49

*F96 lamps shipped by truck only

LAMP LOADER KIT FOR VANS

- Transport fluorescent lamps in your service vehicle without breakage!
- No more boxes consuming valuable cargo space
- Lamp Trays attach to cross arm supports and mount against the inside roof of the service vehicle utilizing that unused headroom
- Each Lamp Tray has the capacity to hold 16 lamps
- Lamp Trays are designed for easy access through rear doors without climbing into the service vehicle
- Replacement Lamp Trays sold separately
- Kit includes 2 heavy duty cross arms and 1 Lamp Tray

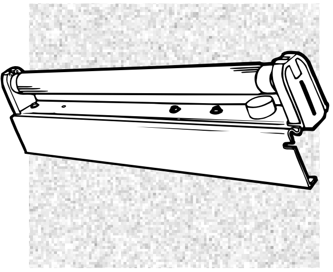


Part Number		Price per ea.
91-0091-00	4 Foot Lamp Loader Kit	274.95
91-0092-00	6 Foot Lamp Loader Kit	289.95
91-0093-00	8 Foot Lamp Loader Kit	304.95

Part Number		Price per ea.
91-0094-00	4 Foot Lamp Loader, Tray only	154.95
91-0095-00	5 Foot Lamp Loader, Tray only	169.95
91-0096-00	6 Foot Lamp Loader, Tray only	184.95

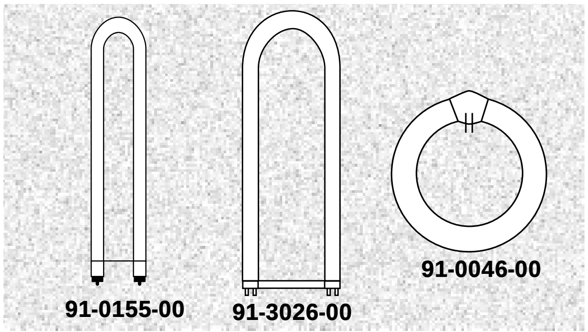
FLUORESCENT LIGHT FIXTURE

- This popular F15T8 lamp fixture easily mounts anywhere. Ideal for video game marquee.
- Pre-wired with everything needed to illuminate an area. Includes starter, ballast and sockets
- Includes fluorescent lamp, by G.E.



Part Number		Price per ea.	L/12
49-1001-00	Fluorescent Lamp assy. complete 120V	15.95	13.40
49-1001-240V	Fluorescent Lamp assy. 240V 50Hz	28.75	23.75

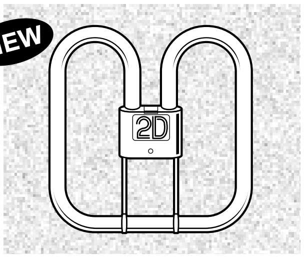
MOD-U-LINE/CIRCLINE FLUORESCENT LAMPS



Part Number		Watts	Length	Case Qty.	Ea. Price L/1 Case
91-0155-00	FB031-835/SP	31	22.5”	15	11.36
91-3026-00	F40CW/U/3	40	22.5”	12	8.49
91-0046-00	FC8T9/CW	22	8.25” dia.	12	11.95

PLUG-IN COMPACT FLUORESCENT LAMP

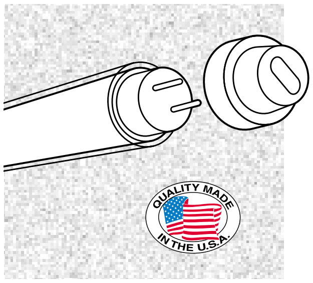
- Replaces 150-Watts incandescent lamp
- Flat profile makes a perfect choice for slim, attractive luminaries
- Works great on either wall or ceiling applications
- 8” x 8” x 1”
- 4 pin plug-in lamp socket



Part Number		Watts	Ea. Price	L/20
91-0918-00	F38/2D/287/AP	5	13.99	12.49

PROTECT-A-LAMP™ FLUORESCENT SAFETY SLEEVE

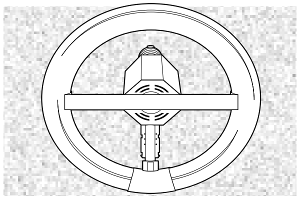
- Unbreakable clear plastic sleeve protects any area in case of shattering glass
- Reusable
- Includes 2 end caps; accommodates both single and double pin lamps
- Ideal for “reach-in” type machines
- 48" in length



Part Number		Price Ea.	L/12	L/24
91-1172-00	Fluorescent Safety Sleeve for T12 Lamps	2.49	2.29	1.99
91-1183-00	Fluorescent Safety Sleeve for T8 Lamps	2.49	2.29	1.99
91-1179-00	End Caps Only, for T12 Safety Sleeve	.99	.89	.79
91-1184-00	End Caps Only, for T8 Safety Lamp	.99	.89	.79

CIRCLINE CIRCULAR FLUORESCENT BULB ADAPTER

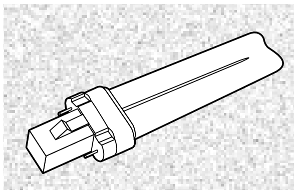
- Screw-in adapter fixture
- Uses 8.25" diameter, 22 watt circline fluorescent bulb
- Includes bulb
- 12 per case



Part Number		Price per each
91-0048-00	Circline Fluorescent Bulb Adapter	13.73

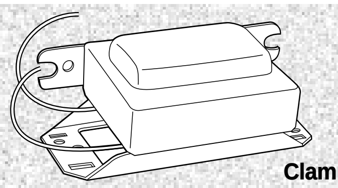
COMPACT FLUORESCENT LAMPS

- Energy and space saving compacts for the new model machines
- Radiates equal amounts of light as traditional fluorescent, in a fraction of the space
- Top quality name brands

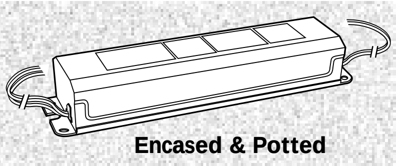


Part Number	Fluorescent	Watts	Ea. Price	L/10
91-3037-00	F5 Compact, 2700K	5	4.95	3.95
91-3038-00	F7 Compact, 2700K	7	4.95	3.95
91-3041-00	F13 Compact, 2700K	13	4.95	3.95
91-1177-00	F9 Compact, 2700K	9	4.95	3.95

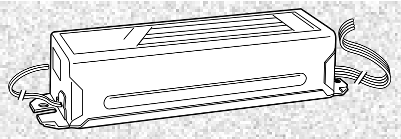
BALLASTS



Clamped Core



Encased & Potted



Illustrations are for reference only

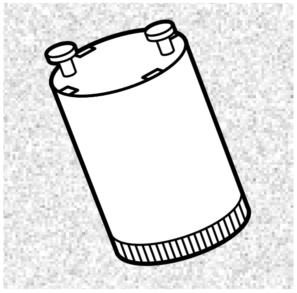
- Top quality ballasts made durable for extra long life
- Low noise
- American made

Robertson

					LEADS Number of Leads/Length									
Part Number	Watts	Lamp Type	Lamps Used On	Volts	Black	White	Blue	Red	Yellow	No. of Lamps	Lamp Type	Ballast Type	Each	L/6
91-1226-00	4, 6, 8	T5	F4, F6, F8	120	(1) 7"	(1) 7"				1	Preheat	Clamped Core	3.29	2.79
91-0904-00	13	T5	F13	120	(1) 8"					1	Preheat	Encased & Potted	5.59	4.99
91-0039-00	13, 14, 15 14, 15 & 20	T8 T12	F13,F14,F15, F14, F15, F20	120	(1) 6"	(2) 6", 15"	(1) 12"	(1) 12"	(1) 15"	1	Preheat	Encased & Potted	13.49	12.49
91-0905-00	13	T5	F13	120	(1) 8"	(1) 26"	(1) 26"			1	Preheat	Encased & Potted	13.59	12.59
91-1227-00	14	T8 T12	F14 F14	120	(1) 7"	(1) 15"				1	Preheat	Clamped Core	3.49	3.19
91-1228-00	15, 19 15, 20	T8 T12	F15, F19 F15, F20	120	(1) 7"	(1) 15"				1	Preheat	Clamped Core	3.29	2.99
91-1229-00	25	T12	F25	120	(1) 7"	(1) 22"				1	Preheat	Clamped Core	3.99	3.49
91-0040-00	25	T12	F25	120	(1) 14"	(2) 14", 22"	(1) 22"	(1) 22"	(1) 22"	1	Preheat	Encased & Potted	16.99	15.99
91-0056-00	25, 40 38	T6 T8	F42, F64 F72	120	(1) 20”	(1) 30”	(1) 60”			1	Instant Start	Encased & Potted	46.00	42.16
91-1230-00	30 40	T12 T12	F30 F40	120	(1) 8"		(1) 26"	(1) 26"		1	Preheat	Encased & Potted	10.69	9.69
991-1232-00	39, 48, 50 57, 67, 75	T12	F48,F60,F64 F72,F84,F96	120	(1) 31"		(1) 31"	(1) 31"		1	Instant Start	Encased & Potted	25.99	24.99
91-1233-00	34, 35 & 40	T12	F34,F35,F40	120	(1) 20"	(1) 20"	(2) 26"	(2) 26"	(2) 37"	2	Rapid Start	Encased & Potted	20.99	19.99
91-1234-00	40 , 50, 52, 55 65, 60, 75	T12	F48,F60,F64,F72 F84,F96ES, F96	120	(1) 31"		(1) 31"	(1) 31"	(1) 31"	2	Instant Start	Encased & Potted	25.99	24.99
91-0018-00	50, 52, 55 60, 65, 75	T12	F60,F64,F72 F84,F96ES,F96	120	(1) 70”	(1) 70”	(1) 46”	(1) 46”		2	Instant Start	Encased & Potted	30.95	29.95
91-1240-00	40	T10	F40	120	(1) 22"		(1) 22"	(2) 35"	(2) 35	1	Rapid Start	Encased & Potted	39.95	36.95
High Output 8 Leads														
49-0468-00	35, 48, 50, 60, 75 80, 85, 100, 110	T12 T12	F24,F36,F42,F48,F60 F64,F72,F84,F96	120	(1) 20"	(1) 20"	(2) 38"	(2) 38"	(2) 51"	1 2	Rapid Start	Encased & Potted	34.95	33.95
91-1226-00	22	T9	FC8T9 (Circline)	120	(1) 10”	(1) 10”	9”Sockets			1	Rapid Start	Encased & Potted	3.29	2.79
91-1235-00	32,40	T9	FC12T9,FC16T9 (Circline)	120	(1) 6”	(2) 6” & 30”	(1) 30”	(1) 30”	(1) 30”	1	Preheat	Encased & Potted	17.79	15.09

STARTERS

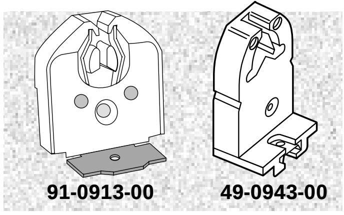
- Deluxe starters are UL/CSA listed
- Deluxe starters include “ceramic condenser” which greatly increases the life of the starter
- All starters are pre-tested to insure top quality
- 25 per box
- Minimum order of 5



Part Number	Watts	Price per ea.	L/5	L/25
91-2000-00	14, 15, 20	FS-2 Deluxe w/condenser	.35	.30
91-2001-00	30, 40	FS-4 Deluxe w/condenser	.35	.30
91-2002-00	4, 6, 8	FS-5 Deluxe w/condenser	.48	.43
91-2003-00	18, 22, 25	FS-25 Deluxe w/condenser	.40	.35
91-2004-00	14, 15, 20	FS-2 Economy w/o condenser	.30	.27
91-2005-00	30, 40	FS-4 Economy w/o condenser	.30	.27
91-2006-00	4, 6, 8	FS-5 Economy w/o condenser	.43	.38
91-2007-00	18, 22, 25	FS-25 Economy w/o condenser	.35	.30
91-0949-10	4-65	S-2 Economy w/o condenser	.96	.89
91-0949-00	4-22	S-10 Economy w/o condenser	.96	.89

FLUORESCENT SOCKET FOR MEDIUM BI-PIN LAMPS

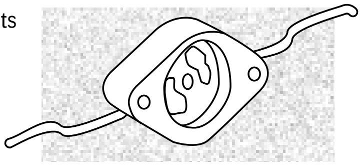
- For T-8 and T-12 lamps
- 600 Volts, 660 Watts



Part Number		Price Ea.	L/24
91-0913-00	Low Profile Design with 9” 18 AWG lead wires	2.29	1.99
49-0943-00	High Profile Design without leads	.99	–

SOCKET FOR FLUORESCENT STARTER

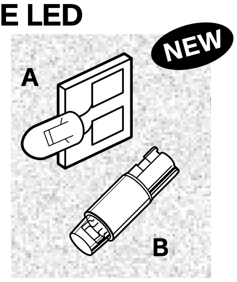
- Rating: 250 Volts, 660 Watts
- 9" 18 AWG lead wires
- UL Listed



Part Number		Price per ea.	L/10
91-0038-00	Socket for Fluorescent Starter	.99	.89

T - $1^{1}/_{4}$ WEDGE BASE LED

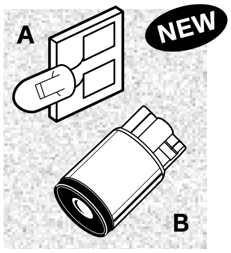
- Replaces standard T-$1^{1}/_{4}$ wedge base incandescent lamps with long life, low power LEDs
- Designed to be “drop in” replacements for all the most popular miniature lamps
- Direct replacement for 73, 85, 86 bulbs
- LEDs have resistor on board
- Used for replacement for Poker/VLT pushbuttons



Part Number		Color	Voltage	Ref.	1-99	100+
91-1162-00	T-$1^{1}/_{4}$ Wedge base LED	Red	6vdc	A	2.65	2.35
91-0688-00	T-$1^{1}/_{4}$ Wedge base LED	White	6vdc	B	12.00	11.50
91-1163-00	T-$1^{1}/_{4}$ Wedge base LED	Red	12vdc	A	2.65	2.35
91-0687-00	T-$1^{1}/_{4}$ Wedge base LED	White	12vdc	B	12.00	11.50

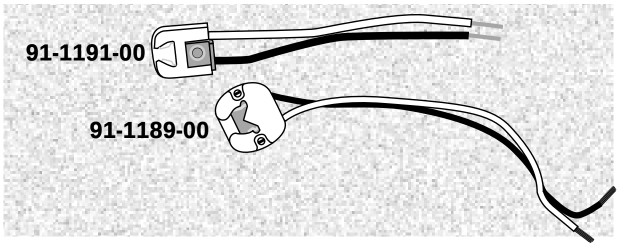
T - $3^{1}/_{4}$ WEDGE BASE LED

- Replaces standard T-$3^{1}/_{4}$ wedge base incandescent lamps with long life, low power LEDs
- Designed to be “drop in” replacements for all the most popular miniature lamps
- Direct replacement for 85,11, 74, 79, 86, 161, 194, 259 bulbs
- LEDs have resistor on board
- Used for replacement for Illuminated pushbuttons



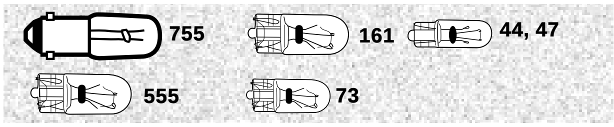
Part Number		Color	Voltage	Ref.	1-99	100+
91-1157-00	T-$3^{1}/_{4}$ Wedge base LED	Red	6vdc	A	2.65	2.35
91-0690-00	T-$3^{1}/_{4}$ Wedge base LED	White	6vdc	B	12.00	11.50
91-1158-00	T-$3^{1}/_{4}$ Wedge base LED	Red	12vdc	A	2.65	2.35
91-0689-00	T-$3^{1}/_{4}$ Wedge base LED	White	12vdc	B	12.00	11.50

FLUORESCENT SOCKETS FOR STANDARD LAMPS



Part Number	Lamp Type	Watts	Ea. Price	L/24
91-1191-00	T5	4, 6, 8, 11, 13	.99	.89
91-1189-00	T8 & T12	14, 15, 16, 18, 20, 22, 25, 30, 40	.99	.89

HIGH QUALITY GE MINI LAMPS

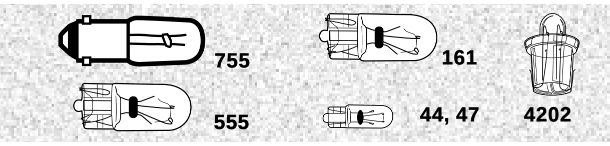


- These high quality lamps out perform all import type mini lamps
- Sold in convenient boxes of 10

Part Number	Lamp Number	Volts	Base	Price L/10	Price L/100
91-0037-00	#37	14	Wedge	.29	.25
91-0044-00	#44	6.3	Bayonet	.25	.22
91-0047-00	#47	6.3	Bayonet	.25	.22
91-0053-00	#53	14.4	S.C. Bayonet	.44	.39
91-1122-00	#55	7	Bayonet	.60	.55
91-0057-00	#57	14	Bayonet	.45	.40
91-0063-00	#63	7	S.C. Bayonet	.91	.86
91-0067-00	#67	13.5	S.C. Bayonet	.61	.56
91-0073-00	#73	14	Wedge	.27	.24
91-0074-00	#74	14	Wedge	.49	.44
91-0086-00	#86	6.3	Wedge	.40	.37
91-0089-00	#89	13	S.C. Bayonet	.42	.39
91-0090-00	#90	12	Bayonet	.61	.55
91-0161-00	#161	14	Wedge	.25	.22
91-0194-00	#194	14	Wedge	.25	.22
91-1125-00	#222	2.25	Screw	.70	.65
91-0313-00	#313	28V	Bayonet	.74	.68
91-0455-00	#455	6.5V	Bayonet	1.15	1.05
91-0555-00	#555	6.3	Wedge	.25	.22
91-0656-00	#656	28	Wedge	.69	.64
91-0658-00	#658	14	Wedge	.35	.28
91-0755-00	#755	6.3	Bayonet	.66	.59
91-0756-00	#756	14.4	Bayonet	1.07	.95
91-0906-00	#906	13	Wedge	.40	.36
91-0912-00	#912	12.8	Wedge	.79	.74
91-1813-00	#1813	14.4	S.C. Bayonet	.95	.90
91-1819-00	#1819	28V	Bayonet	.54	.52
91-1829-00	#1829	37.5V	Mini-Bayonet	.56	.55
91-1847-00	#1847	6.3	Bayonet	.60	.55
91-1891-00	#1891	14.0V	Bayonet	.52	.47
91-1892-00	#1892	14.4	Bayonet	.44	.35

ECONOMY MINI LAMPS

- These economy lamps are the highest rated economy mini lamps in the industry
- Sold in convenient boxes of 10
- Preferred by many O.E.M.'s, original equipment manufacturers

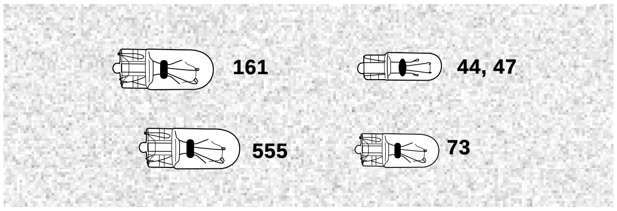


Part Number	Lamp Number	Volts	Base	Price L/10	Price L/100
91-2019-10	#19	14.4	2 Prong	.99	.89
91-0029-00	#E17	28	Wedge	.65	.60
91-1119-10	#44	6.3	Bayonet	.15	.13
91-1120-10	#47	6.3	Bayonet	.15	.13
91-1121-00	#51	7.5	Bayonet	.34	.29
91-2063-10	#63	7	Bayonet	.25	.22
91-1123-10	#68	13.5	Bayonet	.41	.39
91-1221-10	#73	14	Wedge	.39	.37
91-1317-10	#85	28	Wedge	.39	.37
91-1124-10	#E86	6.3	Wedge	.31	.29
91-1129-10	#93	12	Bayonet	.50	.40
91-0152-10	#152	28	Wedge	.23	.21
91-0030-00	#158	14	Wedge	.40	.35
91-1118-01	#159	6.3	Wedge	.30	.27
91-1219-10	#161	14	Wedge	.16	.15
91-1222-10	#193	14	Wedge	.30	.28
91-1320-10	#194	14	Wedge	.30	.25
91-0659-10	#200	28V	Wedge	.33	.29
91-0257-10	#257	14	Bayonet	.37	.33
91-1118-10	#259	6.3	Wedge	.27	.24
91-0013-00	#367	10	S.C. Midget	.56	.52
91-0032-00	#379	6.3	S.C. Midget	.72	.65
91-0382-10	#382	14	S.C. Midget Flanged	.39	.36
91-1128-10	#447	6.3	Wedge	.31	.27
91-2455-10	#455	6.5	Bayonet	.29	.24
91-0033-00	#464	28	Wedge	.38	.35
91-1321-10	#505	24	Wedge	.35	.29
91-1319-10	#555	6.3	Wedge	.16	.15
91-0585-10	#585	28	Wedge	.40	.37
91-2656-10	#656	28	Wedge	.24	.20
91-1126-10	#657	28	Wedge	.31	.28
91-1220-10	#658	14	Wedge	.30	.25

Part Number	Lamp Number	Volts	Base	Price L/10	Price L/100
91-0680-10	#680	5	2 Wire Terminal	.30	.25
91-0034-00	#715	5	2-Wire	.42	.35
91-2755-10	#755	6.3	Bayonet	.35	.30
91-2757-10	#757	28	Bayonet	.40	.35
91-2904-10	#904	13.5	Wedge	.30	.28
91-1135-10	#906	13	T-5	.43	.35
91-0912-10	#912	12.8	Wedge	.27	.24
91-1073-10	#1073	12.8V	S.C. Bayonet	1.20	-
49-0069-00	#1156	12.8	S.C. Bayonet	1.20	1.05
91-1251-10	#1251	28	S.C. Bayonet	.50	.45
91-1683-10	#1683	28	S.C. Bayonet	.69	.59
91-1813-10	#1813	14.4	Bayonet	.25	.19
91-1815-10	#1815	14	Bayonet	.35	.30
91-1816-10	#1816	13	Mini Bayonet	.21	.19
91-1819-10	#1819	28	Mini Bayonet	.28	.25
91-1820-10	#1820	28	Bayonet (T 3¼)	.35	.30
91-1821-10	#1821	28	Mini Screw	.28	.25
91-1829-10	#1829	28	Bayonet	.37	.33
91-1847-10	#1847	6.3	Bayonet	.25	.21
91-1873-10	#1873	28	Bayonet	.35	.30
91-0052-00	#1888	7	Bayonet (T ¾)	1.25	1.10
91-1891-10	#1891	14	Bayonet	.35	.30
91-1892-10	#1892	14.4	Bayonet	.25	.20
91-1893-10	#1893	14	Bayonet	.30	.25
91-2182-10	#2182D	14	2 Wire Base	.33	.26
91-0035-00	#2187	28	2-Wire	.32	.29
91-0036-00	#4201	14	Neo/Base	1.10	1.05
91-0069-00	#4202	24	Neo/Base	.95	.90
91-0068-00	#4203	12	Neo/Base	1.35	1.30
91-0025-00	#7152	5	Bi-Pin w/leads	.88	.78
91-0024-00	#7373	14	Midget Bi-Pin	.96	.80
91-0004-00	#7374	28	Midget Bi-Pin	.58	.52

BULK MINI LAMPS

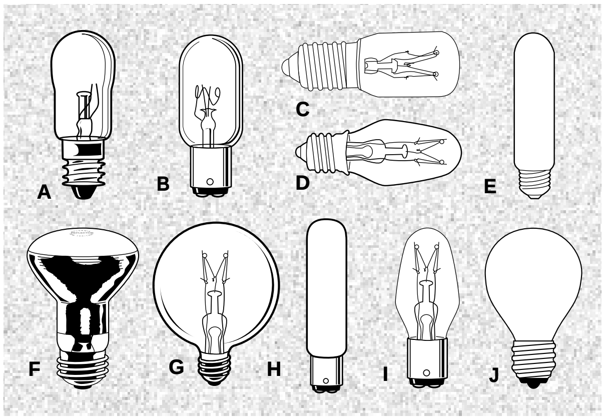
- These economy lamps are the highest rated economy mini lamps in the industry
- Packaged in bulk bags or boxes
- Preferred by many O.E.M.'s (Original Equipment Manufacturers)
- **Bulk packaging may not be broken**



Part Number	Lamp Number	Volts	Base	Packaging	Price per each
91-2044-00	#44	6.3	Bayonet	100 per box	.11
91-1120-00	#47	6.3	Bayonet	100 per box	.11
91-1123-00	#68	13.5	Bayonet	100 per box	.18
91-1221-00	#E73	14	Wedge	100 per box	.16
91-1317-00	#85	28	Wedge	100 per box	.33
91-1124-00	#86	6.3	Wedge	100 per box	.20
91-1129-00	#93	12	Bayonet	100 per box	.32
91-1219-00	#161	14	Wedge	500 per bag	.13
91-1222-00	#193	14	Wedge	500 per bag	.18

Part Number	Lamp Number	Volts	Base	Packaging	Price per each
91-1320-00	#194	14	Wedge	500 per bag	.21
91-1118-00	#259	6.3	Wedge	500 per bag	.21
91-1128-00	#447	6.3	Wedge	500 per bag	.23
91-1319-00	#555	6.3	Wedge	500 per bag	.14
91-1318-00	#656	28	Wedge	500 per bag	.19
91-1126-00	#657	28	Wedge	100 per bag	.21
91-1220-00	#658	14	Wedge	500 per bag	.24
91-1135-00	#906	13	Wedge	100 per bag	.31

SPECIALTY SERVICE LAMPS



- Various sizes and styles for different applications
- American made
  * unless otherwise noted

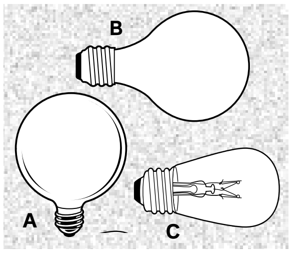
Ref	Part Number	Lamp Type	Watts	Volts	Color	Ea. Price	Case Price
A	91-1193-00	6S6, Candelabra	6	120	Clear	.38 - L/10	.33 - L/50
B	91-1174-00	6S6DC	6	120	Clear	1.29 - L/10	1.09 - L/120
D	91-27C7-00	7C7, *Economy	7	120	Clear	.59 - L/10	.49 - L/100
D	91-07C7-00	7C7, Deluxe	7	120	Clear	.79 - L/12	.69 - L/120
I	91-10C7-00	10C7, D.C.	10	120	Clear	1.39	1.19 L/100
H	91-0064-00	25T6-1/2DC	25	120	Clear	3.74	2.81 L/60
E	91-0049-00	25TT6-1/2	25	120	Frost	3.74	2.81 L/60
B	91-0903-00	25T8 DC, Bayonet	25	120	Clear	1.49 - L/10	1.19 - L/60
E	91-2510-00	25T10	25	120	Frost	1.49 ea.	1.29 - L/10
E	91-4010-00	40T10	40	120	Frost	1.59 ea.	1.39 - L/10
F	91-0907-00	50 R20 Flood	50	125	Clear	8.39 ea.	7.99 - L/60
F	91-5030-00	50 R30 Flood	50	120	Clear	6.39 ea.	4.79 - L/24
F	91-1192-00	75 R30 Spot	75	120	Clear	5.39 ea.	4.89 - L/24
F	91-1182-00	75 R30 Flood	65	120	Clear	3.49 ea.	2.99 - L/24
F	91-7530-00	75 R30 Flood	75	120	Frost	3.99 ea.	3.49 - L/24
C	91-1186-00	Crane Bulb, Candelabra	10	48 - 60	Clear	1.19 ea.	.99 - L/50
C	91-1187-00	Crane Bulb, Candelabra	10	130	Clear	1.69 ea.	1.39 - L/50
A	91-1193-00	6S6 Screw Base	6	120	Clear	.38	.33 - L/50
B	91-0903-00	25T8DC	25	120	Clear	1.49	1.19 - L/60
G	91-0051-00	Mini Globe	5	24	Clear	1.50	1.39 L/25
G	91-0050-00	Mini Globe	5	24	Red	1.65	1.55 L/25
G	91-0060-00	Mini Globe	10	120	Clear	1.59	1.49 L/25
G	91-0061-00	Mini Globe	10	120	Red	1.69	1.59 L/25
J	91-0927-00	40SIIN	40	120	Clear	3.01	2.90 L/240
B	91-0951-00	15T7 D.C. Appliance	15	120	Clear	1.75	1.65 L/120

* Not made in USA

Visit Our Web Site:
for *NEW* Product Updates!!

INCANDESCENT LAMPS

- Various types of incandescent lamps, from typical lamps used everyday in your home, to the more rugged and durable “appliance” and “rough service” lamps
- American made unless otherwise noted



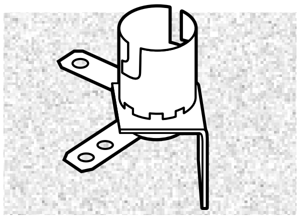
Ref	Part Number	Lamp Type	Watts	Volts	Color	Ea. Price	Case Price
A	91-0917-00	Pearl White Globe	25	120	White	1.50 ea.	1.34-L/120
B	91-0901-00	15A	15	120	Frost	.75	.60-L/24
B	91-1173-00	25A19	25	120	Frost	.75-L/6	.60-L/48
B	91-1167-00	25A Rough Service	25	120	Frost	1.25-L/6	1.09-L/48
B	91-0919-00	40A	40	120	Frost	.75	.73-L/120
B	91-1165-00	40A15 Appliance	40	120	Frost	.79-L/6	.69-L/120
B	91-3060-00	60A	60	120	Frost	.85-L/4	.59-L/48
B	91-1166-00	60A/Rough Service	60	120	Frost	1.25-L/6	1.09-L/120
B	91-5001-00	75A	75	120	Frost	.99-L/6	.79-L/24
B	91-0026-00	75A	75	120	Soft White	.99-L/6	.79-L/24
B	91-0075-00	75A Rough Service	75	120	Frost	2.19	1.99-L/12
C	91-1161-10	Color Display Lamp*[1]	11	130	Red	1.39 ea.	1.29-L/12
C	91-1161-12	Color Display Lamp*[1]	11	130	Blue	1.39 ea.	1.29-L/12
C	91-1161-13	Color Display Lamp*[1]	11	130	Green	1.39 ea.	1.29-L/12
C	91-1161-15	Color Display Lamp*[1]	11	130	Yellow	1.39 ea.	1.29-L/12
C	91-1161-17	Color Display Lamp*[1]	11	130	Orange	1.39 ea.	1.29-L/12
C	91-1161-18	Color Display Lamp*[1]	11	130	Clear	1.39 ea.	1.29-L/12

*Not made in the U.S.A.

[1] Replacement for AMI/Rowe Jukeboxes

SOCKET FOR MINI LAMPS

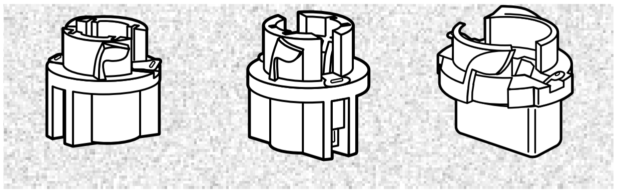
- Sockets for #44, 47, 51 & 55 Mini Lamps



Part Number		Price per L/10	L/100
91-0043-00	Socket for #44, 47, 51 & 55	.74	.68
91-1119-99	Socket for #44 Mini Lamp	.74	.68

WEDGE BASE SOCKETS FOR MINI LAMPS

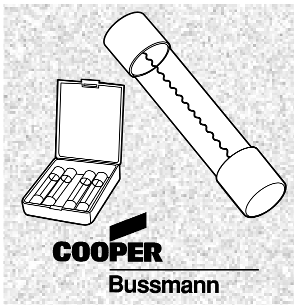
- Push Twist Type



Part Number		Price per L/10	L/100
49-0941-00	T 1½ Wedge Socket	.85	.80
49-0942-00	T 1¾ Wedge Socket	.85	.80
91-0950-00	T 3¼ Wedge Socket	.32	.28

AGC FUSES – FAST BLOW TYPE

- $^1/_4$" diameter x 1$^1/_4$" length
- Various amperages
- Fast acting to protect equipment
- Made in the U.S.A.
- Packaged in ///boxes of 5
- Minimum order 10

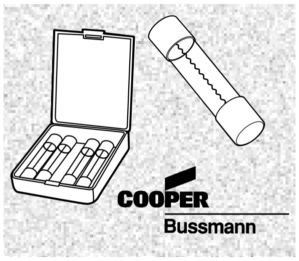


$^1/_4$" Dia. x 1$^1/_4$" L

Part Number	Amps	Volts	Price per fuse L/10	L/50	L/100
49-1232-00	1/10	250	.60	.55	.50
49-0785-00	1/8	250	.60	.55	.50
49-0273-00	3/16	250	.60	.55	.50
49-0349-00	1/4	250	.50	.45	.40
49-0808-00	3/8	250	.29	.26	.24
49-0621-00	1/2	250	.29	.26	.24
49-0622-00	6/10	250	.40	.35	.30
49-0547-00	3/4	250	.29	.26	.24
49-0623-00	8/10	250	.29	.26	.24
49-0118-00	1	250	.29	.26	.24
49-0624-00	1-1/4	250	.29	.26	.24
49-0625-00	1-1/2	250	.29	.26	.24
49-0119-00	2	250	.29	.26	.24
49-0627-00	2-1/2	250	.29	.26	.24
49-0024-00	3	250	.29	.26	.24
49-0932-00	3-1/2	250	.29	.26	.24
49-0615-00	4	250	.29	.26	.24
49-0120-00	5	250	.29	.26	.24
49-0296-00	6	250	.29	.26	.24
49-0613-00	7	250	.29	.26	.24
49-0566-00	8	250	.29	.26	.24
49-0560-00	10	250	.29	.26	.24
49-0277-00	15	32	.29	.26	.24
49-0278-00	20	32	.29	.26	.24
49-0279-00	25	32	.29	.26	.24
49-0280-00	30	32	.29	.26	.24

GMA FUSES – FAST BLOW TYPE

- **5 x 20 mm**
- Various amperages
- Commonly used within pinball machines
- Fast acting to protect electronic equipment
- Made in the U.S.A.
- Packaged in boxes of 5
- Minimum order 10

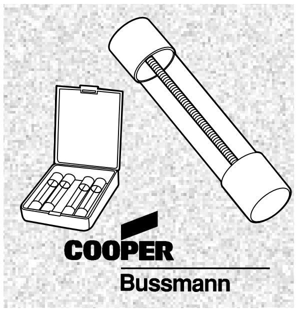


Part Number	Amps	Volts	Price per fuse L/10	L/50	L/100
49-0593-00	3/10	250	.99	.89	.79
49-1233-00	1/2	250	.99	.89	.79
49-0498-00	1	250	.99	.89	.79
49-1271-00	1.25*	250	.99	.89	.79
49-0669-00	1.5	250	.99	.89	.79
49-1335-00	1.5*	250	.99	.89	.79
49-0497-00	2	250	.99	.89	.79
49-1333-00	2*	250	.99	.89	.79
49-0670-00	2.5	250	.99	.89	.79
49-0496-00	3	250	.99	.89	.79
49-1334-00	3*	250	.99	.89	.79
49-0626-00	3.15	125	.99	.89	.79
49-0589-00	4	125	.99	.89	.79
49-0495-00	5	125	.99	.89	.79
49-0652-00	6	125	.99	.89	.79
49-0786-00	7	125	.99	.89	.79
49-0590-00	8	125	.99	.89	.79
49-0290-00	10	125	.99	.89	.79
49-0788-00	15	125	.99	.89	.79

*With Leads

MDL FUSES – SLOW BLOW TYPE

- $^1/_4$"diameter x 1$^1/_4$" length
- Various amperages
- Dual-element, slow blowing type to prevent needless fuse blows
- Made in the U.S.A.
- Packaged in boxes of 5
- Minimum order 10

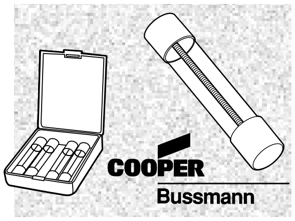


$^1/_4$" Dia. x 1$^1/_4$" L

Part Number	Amps	Volts	Price per fuse L/10	L/50	L/100
49-0612-00	1 6/10	125	.36	.32	.30
49-0611-00	2-8/10	125	.36	.32	.30
49-0610-00	1/10	250	.60	.55	.50
49-0608-00	1/8	250	.60	.55	.50
49-0609-00	3/16	250	.60	.55	.50
49-0607-00	2/10	250	.60	.55	.50
49-0551-00	1/4	250	.36	.32	.30
49-0606-00	3/10	250	.36	.32	.30
49-0494-00	3/8	250	.36	.32	.30
49-0605-00	4/10	250	.36	.32	.30
49-0553-00	1/2	250	.36	.32	.30
49-0604-00	6/10	250	.36	.32	.30
49-0603-00	7/10	250	.36	.32	.30
49-0552-00	3/4	250	.36	.32	.30
49-0602-00	8/10	250	.36	.32	.30
49-0111-00	1	250	.36	.32	.30
49-0599-00	1-1/4	250	.36	.32	.30
49-0564-00	1-1/2	250	.36	.32	.30
49-0598-00	1-6/10	250	.36	.32	.30
49-0112-00	2	250	.36	.32	.30
49-0113-00	2-1/2	250	.36	.32	.30
49-0597-00	2-8/10	250	.36	.32	.30
49-0030-00	3	250	.36	.32	.30
49-0579-00	3-2/10	250	.36	.32	.30
49-0933-00	3 1/2	250	.36	.32	.30
49-0114-00	4	250	.36	.32	.30
49-0025-00	5	250	.36	.32	.30
49-0286-00	6	250	.36	.32	.30
49-0580-00	6-1/4	250	.36	.32	.30
49-0115-00	7	250	.36	.32	.30
49-0596-00	7-1/2	250	.36	.32	.30
49-0116-00	8	250	.36	.32	.30
49-0117-00	10	32	.36	.32	.30
49-0595-00	12	32	.36	.32	.30
49-0592-00	15	32	.36	.32	.30
49-0591-00	20	32	.36	.32	.30
49-0594-00	25	32	.36	.32	.30
49-0281-00	30	32	.36	.32	.30

GMQ FUSES – SLOW BLOW TYPE

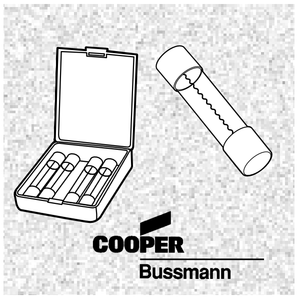
- Various amperages
- Size rejecting, only allows fuse to be used within proper fuseholder
- Made in the U.S.A.
- Packaged in boxes of 5, minimum order 5



Part Number	Amps	Volts	Price per 5	Price per 10
49-0640-00	1	300	4.25	3.99
49-0641-00	3-2/10	300	3.90	3.50
49-0642-00	6-1/4	300	4.25	3.99

GMC, GMD FUSES

- **5 x 20 mm**
- GMC- Medium Blow Type
- GMD- Slow Blow Type
- Various amperages
- Commonly used within pinball machines
- Dual-element, slow blowing type to prevent needless fuse blows
- Made in the U.S.A.
- Packaged in boxes of 5
- Minimum order 10

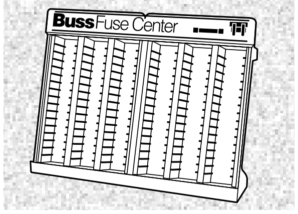


Part Number	Type	Amps	Volts	Price per fuse L/10	L/50	L/100
49-0839-00	GMC	0.25	250	.35	.33	.31
49-0838-00	GMC	0.63	250	.35	.33	.31
49-0837-00	GMC	2.5	250	.35	.33	.31
49-0284-00	GMC	3.15	250	.35	.33	.31
49-0836-00	GMC	4	125	.35	.33	.31
49-0835-00	GMC	5	125	.35	.33	.31
49-0619-00	GMC	6.3	125	.35	.33	.31
49-0620-00	GMC	10	125	.35	.33	.31
49-0614-00	GMD	0.25	250	1.25	1.09	.99
49-0616-00	GMD	2	250	.99	.90	.83
49-0617-00	GMD	2.5	250	.99	.90	.83
49-0618-00	GMD	4	250	.99	.90	.83

FUSE RACK

- Free standing durable yellow plastic display
- Holds 102 packages of 5 fuses (510 Fuses total)
- Fuses sold separately

COOPER
Bussmann

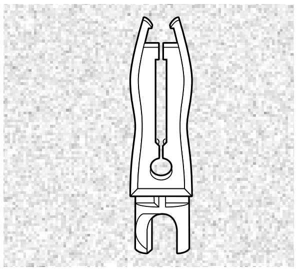


Part Number		Price per each
49-0582-00	Fuse Rack, Empty	16.50

FUSE PULLER

- Makes it easier to install & remove fuses in those hard to reach areas
- For use on all 1/4" diameter glass fuses
- Eliminates risk of breaking fuses or damaging fuse blocks

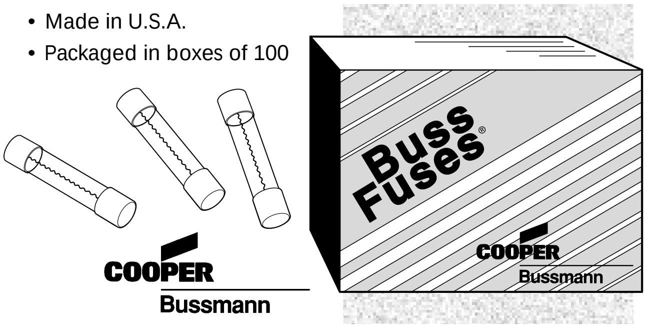
COOPER
Bussmann



Part Number		Price per each
49-0628-00	Fuse Puller Tool	2.00

BULK FUSES

- Made in U.S.A.
- Packaged in boxes of 100



MDL Bulk Fuses - Slow Blow Type (1/4" diameter x 1-1/4" length)

Part Number	Amps	Volts	Price per Box of 100
49-0553-00B	1/2	250	24.95
49-0552-00B	3/4	250	24.95
49-0623-00B	8/10	250	24.95
49-0111-00B	1	250	24.95
49-0112-00B	2	250	24.95
49-0113-00B	2½	250	24.95
49-0030-00B	3	250	24.95
49-0579-00B	3²⁄₁₀	250	24.95
49-0114-00B	4	250	24.95
49-0025-00B	5	250	24.95
49-0286-00B	6	250	24.95
49-0580-00B	6¼	250	24.95
49-0115-00B	7	250	24.95
49-0116-00B	8	250	24.95
49-0117-00B	10	32	24.95
49-0592-00B	15	32	24.95
49-0279-00B	20	32	24.95

AGC Bulk Fuses - Fast Blow Type (1/4" diameter x 1-1/4" length)

Part Number	Amps	Volts	Price per Box of 100
49-0621-00B	1/2	250	10.99
49-0547-00B	3/4	250	10.99
49-0118-00B	1	250	10.99
49-0625-00B	1½	250	10.99
49-0119-00B	2	250	10.99
49-0024-00B	3	250	10.99
49-1236-00B	4	250	10.99
49-0120-00B	5	250	10.99
49-0296-00B	6	250	10.99
49-0613-00B	7	250	10.99
49-1231-00B	7½	250	10.99
49-0566-00B	8	250	10.99
49-0560-00B	10	250	10.99
49-0277-00B	15	32	10.99
49-0278-00B	20	32	10.99
49-0794-00	25	32	10.99

GMA Bulk Fuses - Fast Blow Type (5 x 20mm)

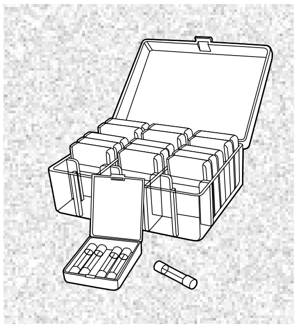
Part Number	Amps	Volts	Price per Box of 100
49-0497-00B	2	250	17.99
49-0591-00B	4	250	17.99
49-0495-00B	5	250	17.99
49-0290-00B	10	250	17.99

GMC Bulk Fuses - Slow Blow Type (5 x 20mm)

Part Number	Amps	Volts	Price per Box of 100
49-3066-00B	1	250	39.95
49-0620-00B	10	250	46.99

FUSE ASSORTMENT KITS

- Assortment of 75 of the most common Fast-Blow and Slow-Blow fuses
- Kit includes handy clear plastic box
- Each 5 pack of fuses has their own section with index
- A must for every service repairman
- See chart for listing of amperages



Part Number		1-5	6-11	12+
49-0568-00	**General Purpose Fuse Kit**	23.95	22.95	21.95

Contains the following fuses:

Quantity	Amps	Type	Volts	Replacement Happ P/N
5	1/2	Fast-Acting	250	49-0621-00
5	1	Fast-Acting	250	49-0118-00
5	1-1/2	Fast-Acting	250	49-0625-00
10	2	Fast-Acting	250	49-0119-00
10	3	Fast-Acting	250	49-0024-00
5	5	Fast-Acting	250	49-0120-00
5	1/2	Slow-Blow	250	49-0553-00
5	1	Slow-Blow	250	49-0111-00
10	2	Slow-Blow	250	49-0112-00
10	3	Slow-Blow	250	49-0030-00
5	5	Slow-Blow	250	49-0025-00

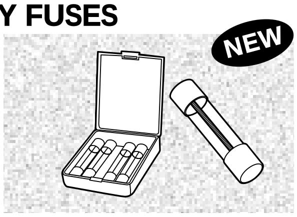
Part Number		1-5	6-11	12+
49-0569-00	**Pinball Fuse Kit**	23.95	22.95	21.95

Contains the following fuses:

Quantity	Amps	Type	Volts	Replacement Happ P/N
5	8	Fast-Acting	250	49-0566-00
5	3/4	Fast-Acting	250	49-0547-00
5	8	Fast-Acting	250	49-0566-00
5	3/8	Slow-Blow	250	49-0494-00
5	2-1/2	Slow-Blow	250	49-0113-00
25	3	Slow-Blow	250	49-0030-00
15	5	Slow-Blow	250	49-0025-00
5	7	Slow-Blow	250	49-0115-00
5	8	Slow-Blow	250	49-0116-00

SPECIALTY FUSES

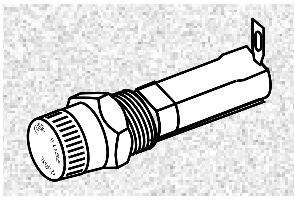
- Packed in tins of 5
- Sold per fuse



Part Number	Type	Amps	Volts	Price per ea.
49-1234-00	AGX	¼	250	.86
49-1255-00	AGX	½	250	.86
49-1256-00	AGX	1	250	.86
49-1257-00	MCR	½	250	.76
49-1241-00	MCR	1½	250	.76
49-1238-00	GJV	½ w/leads	250	.86
49-1239-00	GJV	3 w/leads	250	1.16
49-1240-00	GJV	4 w/leads	250	1.17
49-1237-00	GJV	5 w/leads	250	1.27

PANEL MOUNT FUSEHOLDER

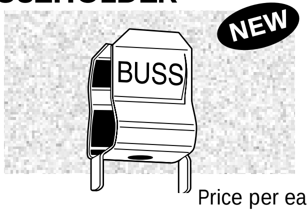
- Designed to virtually eliminate the possibility of electrical shock
- Maximum panel thickness of $^{5}/_{16}$"
- For 1/4" x 1 1/4" fuses
- .187" Quick Connect Terminals



Part Number	Amps	Volts	Price per ea.	per 10
49-0023-00	20	300	2.10	2.05

PC MOUNT FUSEHOLDER

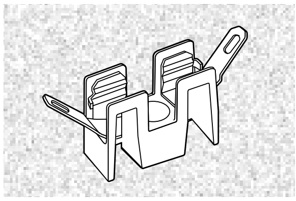
- For use with printed circuit boards
- Use with 1/4" diameter fuses with end stops



Part Number		Price per ea.
49-1272-00	PC Mount Fuseholder	2.78

FUSE BLOCKS

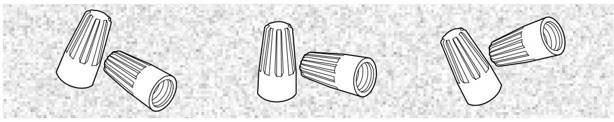
- For $^{1}/_{4}$" x $1^{1}/_{4}$" fuses
- Features individual barriers to reinforce the fuse clips while providing greater protection against clip damage and electrical shock
- Minimum order 10



Part Number	Type	Terminal Type	Price per ea.	per 20
49-0563-00	Single	Solder	.90	.85
49-0562-00	Double	Solder	.95	.90
49-0395-00	Triple	3/16" Q.C.	1.60	1.45

WIRE NUT CONNECTORS

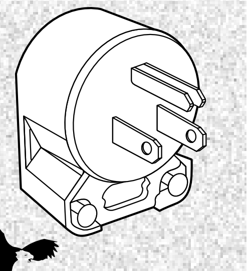
- Positive grip design
- For either solid or stranded wire
- Well suited for all types of splices
- Color-coded to make selection on the job easier
- Molded of pliable, fire resistant thermoplastic that is virtually indestructible
- Unique, fully-seated square-wire spring on the inside forms its own threads to draw the connector completely onto wire combinations
- Wide-throat skirt to guard against flashover
- Sold in boxes of 100 only
- Rated to 105 Degrees C
- UL & CSA listed



Part Number		Color	Wire Gauge	Bag of 100
43-0484-00	Wire Nut Wire Connectors	Gray	22-16	7.99
43-0483-00	Wire Nut Wire Connectors	Orange	22-14	9.99
43-0482-00	Wire Nut Wire Connectors	Yellow	18-12	10.99
43-0917-00	Wire Nut Wire Connectors	Blue	18-16	12.95

EAGLE SUPER SPEC 90° ANGLE PLUG

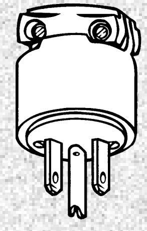
- Allows equipment to be moved closer to wall
- 12A-125V, 2-Pole, 3-Wire Grounding
- 8 rotating positions to allow placement of cord in most convenient location
- UL & CSA listed
- Gray color
- Made in the U.S.A.



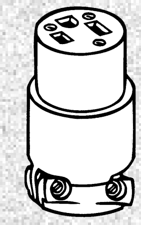
Part Number		Price per ea.	6+
91-4000-00	Eagle Super Spec 90° Angle Plug	7.49	6.99

EAGLE THERMOPLASTIC PLUG & CONNECTOR

- Solid brass plug blades are firmly embedded into body
- Terminal screws are large head type for easy wiring, separated by barriers to prevent flashover or short circuits
- Strain relief clamps are superior designs, providing a secure mechanical grip
- Yellow thermoplastic is rigid and virtually unbreakable and can be used for hard service applications
- Dead-Front Construction
- 2-Pole, 3-Wire Grounding with cord clamp
- Cord diameter .250" - .655"
- UL & CSA listed, NEMA 5-15(15A), 5-20(20A)
- 125 Volts
- Made in the U.S.A.



Plug Male



Connector Female

15 AMP TYPE:

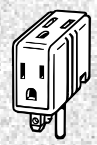
Part Number		Dia.	Length	Eagle P/N	Price Each	10-19	20+
27-1003-00	Plug Male	1 17/32"	1 3/4"	4867	3.25	2.90	2.49
27-1004-00	Connector Female	1 17/32"	2 19/32"	4887	5.25	4.99	4.49

20 AMP TYPE:

Part Number		Dia.	Length	Eagle P/N	Price Each	10-19	20+
27-1036-00	Plug Male	1 17/32"	1 3/4"	4409	3.90	3.39	2.89
27-1035-00	Connector Female	1 17/32"	2 19/32"	4228	5.90	5.49	4.89

HEAVY-DUTY CUBE TAP

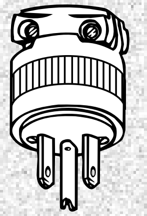
- 3-socket, 3-wire, 15A 125V
- Color: brown



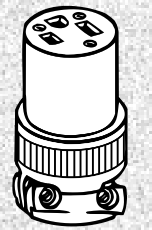
Part Number		Price per ea.	6+
43-0527-00	Heavy Duty Cube Tap	4.99	3.99

EAGLE ARMORED PLUG & CONNECTOR

- Steel clamps and armor are heavily plated for corrosion resistance
- Armor is knurled for easy gripping
- Solid brass plug blades are firmly embedded into body
- Terminal screws are large head type for easy wiring, separated by barriers to prevent flashover or short circuits
- Strain relief clamps are superior designs, providing a secure mechanical grip
- Vinyl Dead-Front Construction
- 2-Pole, 3-Wire Grounding with cord clamp
- Cord diameter .250" - .625"
- UL & CSA listed, NEMA 5-15
- 15 AMP, 125 Volts
- Made in the U.S.A.



Armored Plug Male



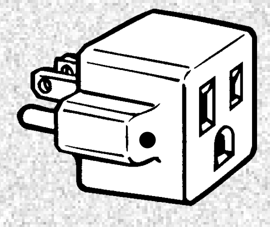
Armored Connector Female

15 AMP TYPE (125V):

Part Number		Dia.	Length	Eagle P/N	Price Each	10-19	20+
91-1168-00	Armored Plug Male,	1 1/2"	2"	2867	3.20	2.79	2.29
91-1169-00	Armored Connector Female	1 1/2"	2 19/32"	2887	4.49	3.89	3.39

SINGLE OUTLET SURGE PROTECTOR

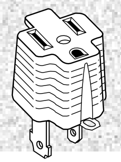
- Prevents dangerous power surges that can destroy delicate electronic circuitry
- Indicator light signals surge protection is ON
- Grounding outlet
- Three modes of protection: hot-neutral, hot-ground, and neutral-ground
- EMI and RFI noise filter
- 15A-125V AC, 1875 Watts rating
- Peak suppression voltage: 330 Volts. Maximum power surge current: 4500A
- UL listed
- Made in the U.S.A.



Part Number		Price per ea. 1-5	6+
27-1006-00	Single Outlet Surge Protector	8.79	8.19

VINYL GROUND ADAPTER

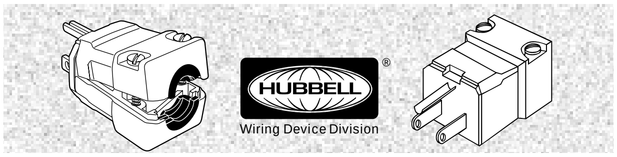
- Connects a 2-wire system to a 3-wire ground
- 15A 125V
- Durable vinyl and metal construction



Part Number		Price per ea.	10+
91-0042-00	Vinyl Ground Adapter	.55	.48

HUBBELL VALISE® PLUG AND CONNECTOR

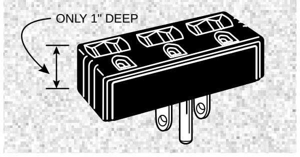
- Totally insulated impact and crush resistant yellow nylon body
- Unique patented clamp type terminals provide a superior electrical connection by "bundling" the conductor strands when clamps are tightened
- 8 specially designed load bearing locking lugs insure a positive fit.
- Powerful cord grips prevent conductor slippage and strain on wiring terminals
- Dead-Front Construction
- 2-Pole, 3-Wire Grounding
- Cord Diameter .220" - .660"
- UL & CSA listed, NEMA 5-15
- 15 Amp, 125 Volts



Part Number	Description	Length	Hubbell P/N	Price Each	6-11	12+
91-4001-00	Plug Male	1.88"	5965VY	13.55	12.85	12.20
91-4002-00	Connector Female	2.63"	5969VY	20.49	19.99	19.35

TRIPLE GROUND PLUG

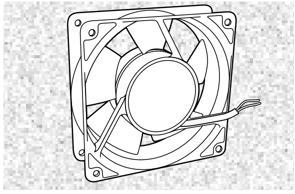
- 1" deep



Part Number		Price per ea.
49-0952-00	Triple Ground Plug	6.29

POWER SUPPLY COOLING FAN

- For use in Computer grade power supplies
- 12vdc
- Size: 3-1/8"square x 1"

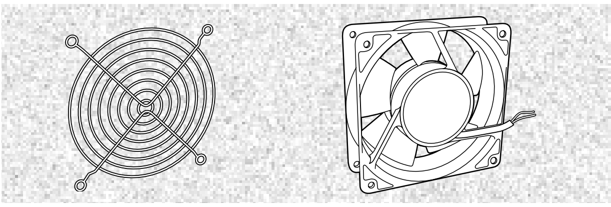


Part Number		Price per ea.	10+
80-0006-33	Power Supply Cooling Fan 12vdc	4.75	3.95

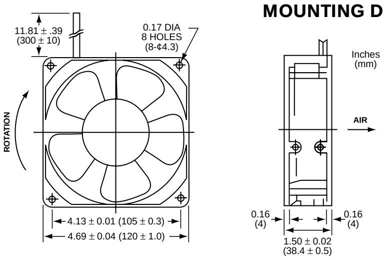
Visit Our Web Site:
for ***NEW*** Product Updates!!

COOLING FAN

- Top quality fan cools the electronics in your video game
- Industry standard size 4.69" square x 1.5" deep
- Low noise; impedance protected
- 110/120V AC fan easily mounts in most equipment
- UL Approved
- Flying leads
- Sealed ball bearing type
- Air flow 98-106 CFM (Cubic feet per minute)
- Cast aluminum frame
- 2,900 - 3,200 RPM



MOUNTING DIMENSIONS

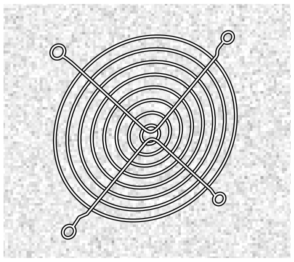


Part Number		Price per ea.	25+
80-0006-10	Fan with Sealed Ball Bearings	21.50	19.50
80-0006-11	Fan with Sleeve Bearings	11.50	10.50
80-0006-20	Metal Guard for Cooling Fan	1.15	1.05

NEW

FINGER GUARD FOR FAN

- Protects fingers from touching fan blades
- Steel wire construction
- Nickel chrome finish
- Spot welded

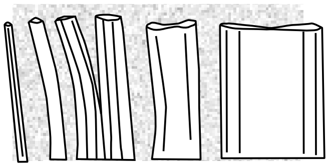


Part Number		Price per ea.
70-0226-50	Finger Guard for 3½" Fan	2.29

HEAT SHRINK TUBING

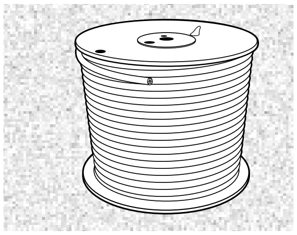
- Black polyolefin tubing
- 100 ft. per spool
- Sold by the foot

NEW



Part Number	Diameter	Price per ea.
95-0623-00	1/16"	.42
95-0624-00	1/8"	.57
95-0622-00	3/16"	.63
95-0625-00	1/4"	.73
81-0001-00	1/2"	.99
95-0888-00	3/4"	1.14

HEAVY DUTY LINE CORD

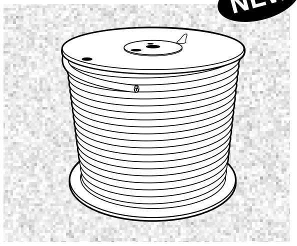


- Stranded wire
- Black rubber cover
- Ideal for use in power cords for machines
- 250' per roll
- 600V
- Minimum order 250'

Part Number		Price per ft. 250 ft.	500+ ft.
80-0045-16G	16 Gauge Heavy-Duty Black 3-Wire Line Cord (Minimum 250 feet)	.55	.53
80-0045-14G	14 Gauge Heavy-Duty Black 3-Wire Line Cord (Minimum 250 feet)	1.09	.99

HOOK-UP WIRE

NEW

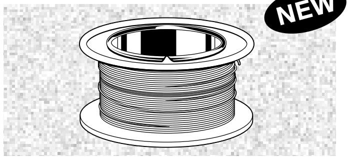


- Stranded wire
- 18, 20, 22 and 26 gauge available
- Only solid color codes are stocked
- Custom color codes can be special ordered
- Sold in 500 ft. spools only

Part Number	Gauge	Color Code	Price per ea.
49-3067-00	18	Yellow	24.95
49-1116-00	20	Red	24.95
49-1098-00	20	Blue	24.95
49-1097-00	20	Violet	24.95
49-1092-00	20	Yellow	24.95
49-1088-00	20	Green	24.95
49-1086-00	20	White	24.95
49-1078-00	20	Brown	24.95
49-1119-00	20	Orange	24.95
49-1110-00	20	Black	24.95
49-1105-00	20	Gray	24.95
49-1207-00	22	Red	24.95
49-1139-00	22	Blue	24.95
49-1138-00	22	Violet	24.95
49-1152-00	22	Yellow	24.95
49-1149-00	22	Green	24.95
49-1209-00	22	White	24.95
49-1128-00	22	Brown	24.95
49-1121-00	22	Orange	24.95
49-1172-00	22	Black	24.95
49-1173-00	22	Gray	24.95
49-1188-00	26	Red	22.95
49-1187-00	26	Violet	22.95
49-1186-00	26	Yellow	22.95
49-1185-00	26	Green	22.95
49-1184-00	26	White	22.95
49-1183-00	26	Brown	22.95
49-1182-00	26	Orange	22.95
49-1181-00	26	Black	22.95
49-1180-00	26	Gray	22.95

JUST WRAP WIRE

NEW

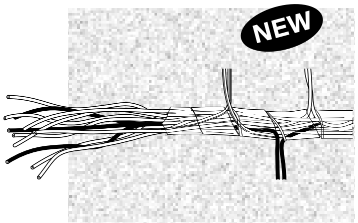


- 30 AWG wire wrap
- Sold by the roll only
- 50 ft. per roll

Part Number		Price per ea.
49-1275-00	Blue	15.99
49-1276-00	Yellow	15.99
49-0843-00	White	15.99

SPIRAL CUT WRAP

NEW

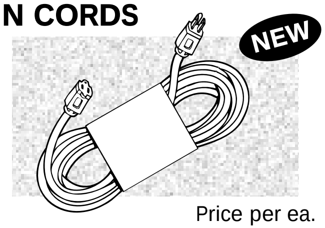


- Polyethylene material
- Nominal O.D. .250"
- Nominal wall .031"
- Nominal pitch 3/8"
- Maximum bundle 2"
- Sold per foot
- 100 ft. per spool

Part Number		Price per ft.
43-1019-00	Spiral Cut Wrap	.47

EXTENSION CORDS

NEW

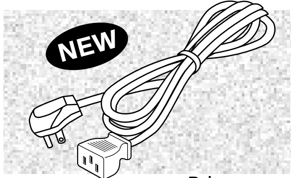


- 16 gauge, 3-wire
- UL listed

Part Number		Price per ea.
80-0300-00	10 ft.	9.95
49-0949-00	15 ft.	16.95
49-0953-00	50 ft.	21.95
49-0954-00	100 ft.	42.95

HEAVY DUTY APPLIANCE CORD

NEW

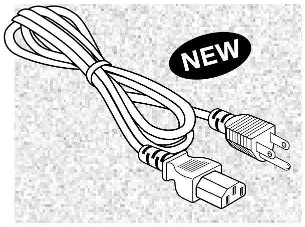


- For Refrigerators, Air conditioners, etc
- 14 gauge, 3-wire
- 9 ft. long
- UL listed

Part Number		Price per ea.
49-0950-00	Heavy Duty Appliance Cord	13.99

POWER CORD

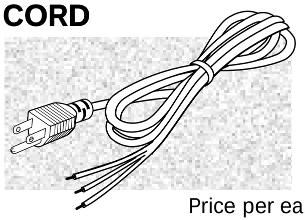
NEW



- 16 gauge, 3-wire
- 8 ft. long
- SJT black jacket
- 3-prong plug on one end, 3-hole computer style receptacle on the other end

Part Number		Price per ea.
80-0213-00	Power Cord	8.95

POWER CORD

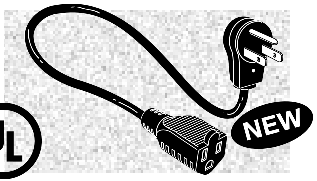


- 16 gauge
- 10 ft. length
- 3-Wire plug on one end, bare wires on other end
- 12 per case

Part Number		Price per ea.
49-0948-00	Power Cord	13.99

POWER CORD WITH ANGLE PLUG

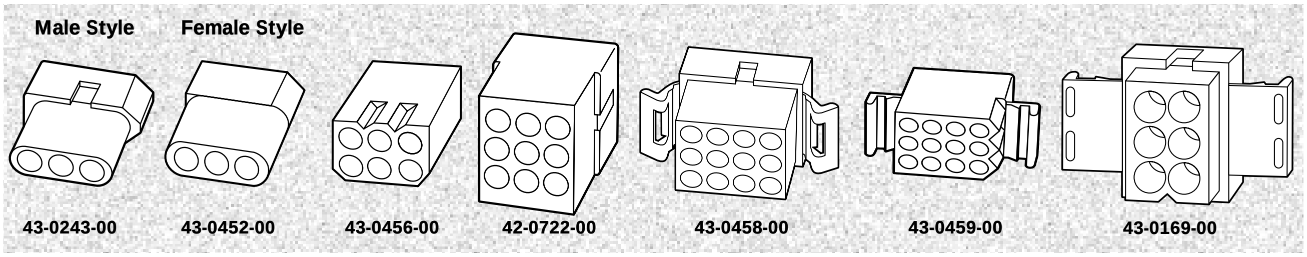
NEW



- Angle plug allows machine to be put closer to wall
- 18" long
- 16 gauge, 3-wire
- Black SSJT jacket

Part Number		Price per ea.
49-3072-00	Power Cord with Angle Plug	8.95

MOLEX CONNECTORS



- Commonly used on all types of equipment
- Various sizes available
- Passive (friction) lock
- UL File No. E-29179
- Natural Nylon Color
- 2 Different sizes (.093" and .062")

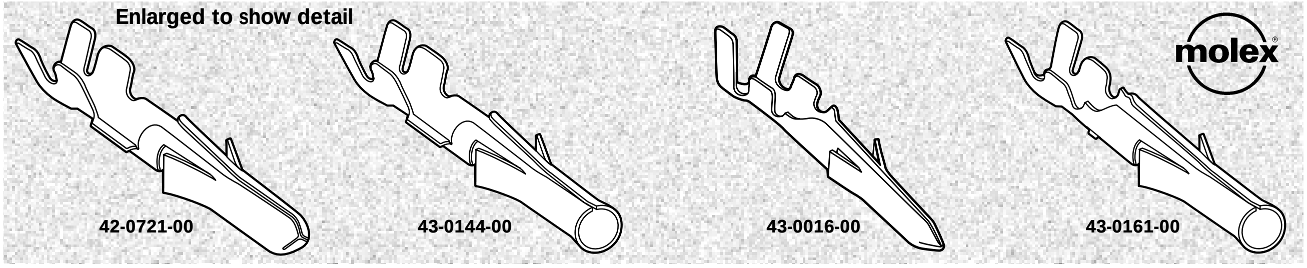
.093" Family

Part Number		Molex Ref. No.	Price per ea.	per 25
43-0250-00	2-Pin Male	03-09-2022	.55	.50
43-0248-00	2-Pin Female	03-09-1022	.55	.50
43-0243-00	3-Pin Male	03-09-2032	.75	.70
43-0452-00	3-Pin Female	03-09-1032	.75	.70
43-1105-00	4-Pin Male Square	03-09-2040	.85	.80
43-1107-00	4-Pin Female Square	03-09-1040	.85	.80
43-0453-00	4-Pin Male (Vertical)	03-09-2042	.85	.80
43-0255-00	4-Pin Female (Vertical)	03-09-1042	.85	.80
43-0454-00	4-Pin Male	03-09-2049	.94	.89
43-0455-00	4-Pin Female	03-09-1049	.94	.89
43-1108-00	6-Pin Male Square	19-09-2068	.99	.94
43-1106-00	6-Pin Female Square	19-09-1069	.99	.94
43-0491-00	6-Pin Male	03-09-2062	.99	.94
43-0456-00	6-Pin Female	03-09-1064	.99	.94
42-0722-00	9-Pin Male	03-09-2092	1.12	1.07
43-0143-00	9-Pin Female	03-09-1094	1.12	1.07
43-0458-00	12-Pin Male w/ Ears	03-09-2122	1.20	1.15
43-0459-00	12-Pin Female w/ Ears	03-09-1121	1.20	1.15
43-0460-00	15-Pin Male w/ Ears	03-09-2158	1.39	1.34
43-0461-00	15-Pin Female w/ Ears	03-09-1154	1.39	1.34

.062" Family

Part Number		Molex Ref. No.	Price per ea.	per 25
43-0015-00	2-Pin Male	03-06-2023	.49	.44
43-0444-00	2-Pin Female	03-06-1023	.49	.44
43-0017-00	3-Pin Male	03-06-2032	.57	.52
43-0467-00	3-Pin Female	03-06-1032	.57	.52
43-0468-00	4-Pin Male	03-06-2042	.89	.84
43-0469-00	4-Pin Female	03-06-1042	.89	.84
43-0470-00	4-Pin Male Square	03-06-2044	.89	.84
43-0471-00	4-Pin Female Square	03-06-1044	.89	.84
43-0169-00	6-Pin Male	03-06-2062	.99	.94
43-0332-00	6-Pin Female	03-06-1062	.99	.94
43-0472-00	9-Pin Male	03-06-2092	.91	.86
43-0473-00	9-Pin Female	03-06-1092	.91	.86
43-0474-00	12-Pin Male	03-06-2122	.93	.88
43-0475-00	12-Pin Female	03-06-1122	.93	.88
43-0476-00	12-Pin Male w/ Ears	03-06-2121	.93	.88
43-0477-00	12-Pin Female w/ Ears	03-06-1121	.93	.88
43-0478-00	15-Pin Male w/ Ears	03-06-2151	1.19	1.14
43-0479-00	15-Pin Female w/ Ears	03-06-1151	1.19	1.14

MOLEX PINS (TERMINALS)



- Pins/Terminals required for use in above Molex connectors
- Snap-fit design allows for reliability and ease of installation
- Minimum order 10
- Molex quality

.093" Family

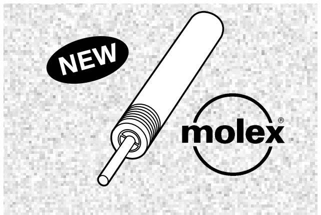
Part Number		Molex Ref. No.	per 10	per 100	per 1000
42-0721-00	Male .093" Pin (Terminal)	02-09-2118	.09	.08	.07
43-0144-00	Female .093" Pin (Terminal)	02-09-1119	.09	.08	.07

.062" Family

Part Number		Molex Ref. No.	per 10	per 100	per 1000
43-0016-00	Male .062" Pin (Terminal)	02-06-2103	.09	.08	.07
43-0161-00	Female .062" Pin (Terminal)	02-06-1103	.09	.08	.07

MOLEX PINS (TERMINAL) EXTRACTOR TOOL

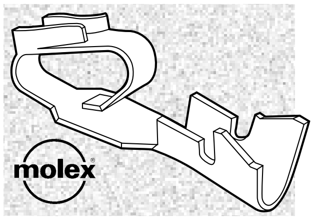
- Spring-loaded tool to allow easy removal of Molex pins from connector
- A must for every toolbox
- For servicing of Molex connectors



Part Number		Molex Ref. No	Price per ea.
11-03-0006	Molex Extractor Tool for .093" Pins	11-03-0006	16.40
11-03-0002	Molex Extractor Tool for .062" Pins	11-03-0002	18.95
11-03-0003	Molex Extractor Tool for .156" Pins	11-03-0003	4.45
92-0199-00	Replacement Shaft Only for .093" Extractor Tool	11-11-0005	8.95
92-0198-00	Replacement Shaft Only for .062" Extractor Tool	11-11-0004	8.95

MOLEX TRIFURCON CRIMP-STYLE TERMINAL

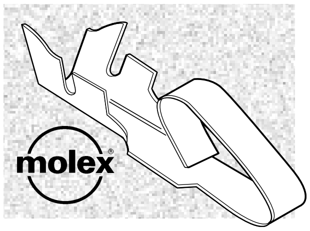
- For use with all female connectors with .156 centers
- For wire size 18-24 AWG
- Grips on three sides instead of only one
- Molex ref. no 08-50-0189



Part Number		price per 10+	100+	1000+
43-0515-00	Molex Trifurcon Crimp-Style Terminal	.15	.14	.11

MOLEX CRIMP-STYLE TERMINAL

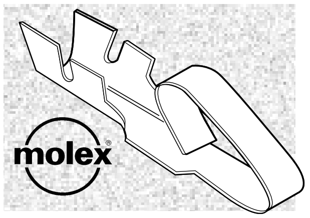
- For use with all Molex female connectors with .156 centers
- For wire size 18-24 AWG
- Molex ref. no 08-50-0106



Part Number		price per 10+	100+	1000+
43-0523-00	Molex Crimp-Style Terminal	.15	.14	.11

MOLEX CRIMP-STYLE TERMINAL

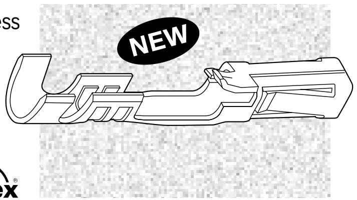
- For use with female connectors with .100 centers
- For wire size 22-30 AWG
- Molex ref. no 08-50-0114



Part Number		price per 10+	100+	1000+
43-0524-00	Molex Crimp-Style Terminal	15	.14	.11

MOLEX C-GRID FEMALE TERMINAL

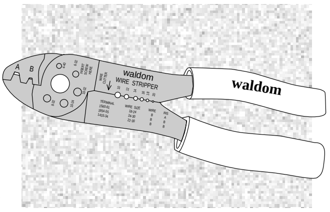
- Used on bill validator harness
- Used with crimp housing 43-0817-00
- .100 pitch
- 250V 3 amp
- Ref. No. 16-02-0069



Part Number		Price per ea.
43-0816-00	C-Grid Female Terminal	12.50

CRIMPING/WIRE STRIPPER/BOLT CUTTING HAND TOOL

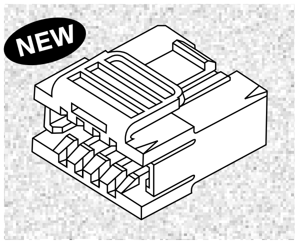
- Ideal for prototype work, small production volumes and repair jobs
- Clean cutting wire cutter
- Wire stripper dor 10,12,14, 16,18, and 20 guage wire
- Bolt Cutter for 8-32, 10-24, 10-32, 6-32, And 4-40 Threads
- Crimping tool for .062” & .093” pins (terminals)



Part Number		Price per ea.
11-03-0004	Hand Crimping/Wire Stripper/ Bold Cutting Tool	22.79

MOLEX C-GRID INTERIM CLIP

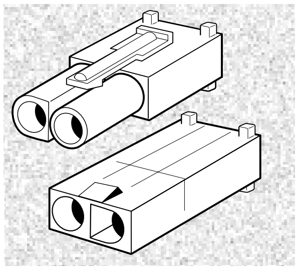
- Used on bill validator harness
- .100 pitch
- Dual row
- Requires two 3-circuit plugs (see 43-0817-00)
- 250V 3 amp
- Sold in eaches



Part Number		Price per ea.
43-0818-00	C-Grid Interim Clip	1.30

MOLEX 2-PIN POWER CONNECTORS

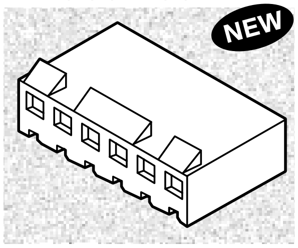
- Male plug mates to power input for both Happ Controls and Wells Gardner monitors (2-pin)



Part Number		MOLEX. No.	per ea.	10+
43-0536-00	2-Pin Male w/o ears .093 centers	19-09-1029	.56	.50
43-0543-00	2-Pin Female .093 centers	19-09-2029	1.10	1.00

MOLEX FEMALE HOUSINGS

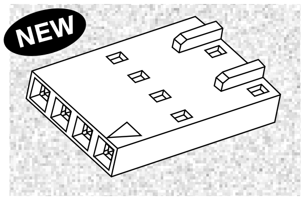
- Used with .156 Header Wafer Connectors



Part Number	Ref. No.		Price per ea.
43-0698-00	09-50-7201	Molex 20-Pin Female Housing	.99
43-0923-00	09-50-3101	Molex 10-Pin Female Housing	.53
43-0792-00	09-50-3051	Molex 5-Pin Female Housing	.52
43-0924-00	09-50-3041	Molex 4-Pin Female Housing	.52

MOLEX C-GRID CRIMP HOUSING

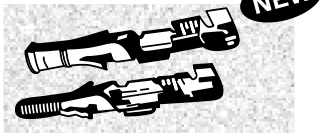
- Used on bill validator harness
- .100 pitch
- Single row version D
- Back ribs
- 3-circuit



Part Number		Price per ea.
43-0817-00	C-Grid Crimp Housing	.52

AMP STYLE TERMINAL PINS

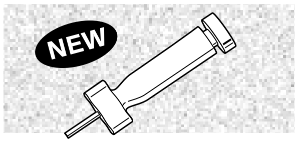
- Sold per each
- Packed in bags of 100



Part Number	Ref. No.		Price per ea.
43-1116-00	166103-7	.062 Male	.55
43-1115-00	166105-8	.062	.65
43-0794-00	170363-1	.062 Male	.15
43-0793-00	170365-1	.062 Female	.15
43-0801-00	16-02-0115	.064 Male	.20
43-0800-00	16-02-0103	.064 Female	.20
43-0521-00	350547-1	.093 Male	.20
43-0522-00	350550-1	.093 Female	.20

AMP INSERTION/EXTRACTION TOOL

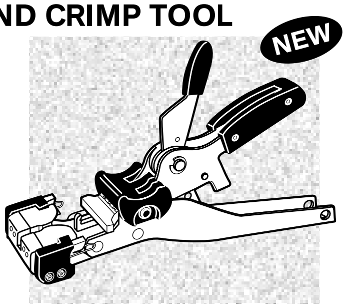
- For Mini-Universal Mate-N-Lock connectors and MR Connectors
- Amp ref. no. 455822-2



Part Number	.	Price per ea.
92-0272-00	Amp Insertion/Extraction Tool	26.95

AMP PICABOND CRIMP TOOL

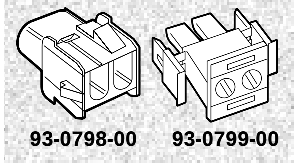
- Amp VS-3 Hand Tool Kit includes a standard VS-3 hand tool assembly, a crimp height gauge, a tool holder assembly, a black nylon cord, a repair tag and a carrying case
- For splicing and bridging wires using Amp Picabond connectors



Part Number	Ref. No.		Price per ea.
43-0795-00	244271-5	Amp Picabond Crimp Tool	419.00
43-0796-00	60947-3	Red Striped Connector	.32
43-0797-00	609454-4	Green Striped Connector	.28

AMP PLUG AND RECEPTACLE

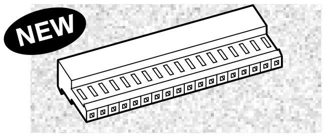
- Available in 2-pin or 12-pin configuration



Part Number	Ref. No.		Price per ea.
43-0799-00	1-480698	2-pin Amp Plug	.60
43-0798-00	1-480699	2-pin Amp Receptacle	.60
43-1047-00	1-480709	12-pin Amp Plug	.79
43-1046-00	1-480708	12-pin Amp Receptacle	.79

AMP MTA-100 CLOSED END HOUSINGS

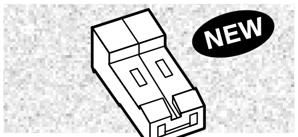
- .100 centers
- Red plugs for 22 AWG wire
- Mates with all 100 post header assemblies



Part Number	Ref. No.	No. Pins	Price per each
43-0810-00	640440-6	6	.68
43-0809-00	640440-8	8	.90
43-0808-00	640440-0	10	1.13
43-0914-00	640440-6	16	1.20
43-0807-00	640440-8	18	1.77

AMP MTA-156 CLOSED END HOUSINGS

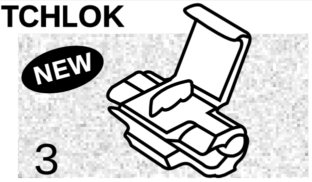
- .156 centers
- Red plugs for 22 AWG wire
- Mates with all 156 post header assemblies



Part Number	Ref. No.	No. Pins	Price per each
43-0806-00	643193-2	2	.45
43-0805-00	643193-3	3	.62
43-0804-00	640428-4	4	.45
43-0803-00	640428-6	6	.92
43-0802-00	640428-7	7	.69

3M SCOTCHLOK

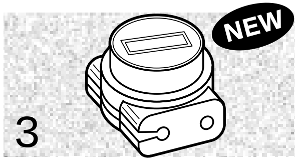
- Fully insulated
- Easy to install – no stripping or twisting



Part Number	Color	AWG	Pack	Price per ea.
43-0824-00	Blue	14-18	100	16.99
43-0823-00	Red	16-22	50	16.95
43-0822-00	Red	18-22	50	16.95

3M UR CONNECTORS

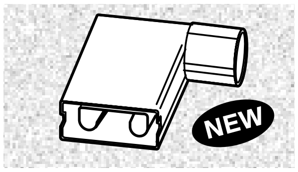
- 2 wire
- Just trim wires, insert and crimp
- Sold per each
- Packed 100 per box



Part Number	Color	AWG	Price per ea.
43-0782-00	Green Style	22-26	.65
43-0781-00	Red Style	19-24	.39

FLAG TERMINALS

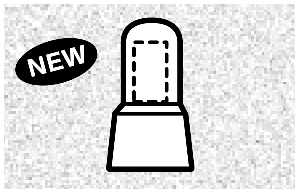
- Fully insulated
- Color: Red
- .250 switch female lug
- For use with 18-22 AWG wire
- Sold in bags of 100



Part Number		Price per ea.
43-0827-00	Flag Terminals	10.95

CRIMP STYLE WIRE TERMINALS

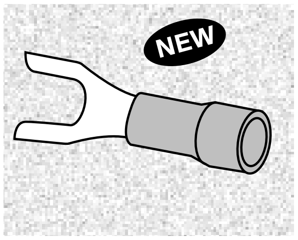
- Fully insulated nylon terminals
- Pack of 100
- 14-22 AWG



Part Number		price per 10+	100+	1000+
43-0789-00	Crimp-Style Wire Terminals	8.49	7.95	7.49

FORK TERMINALS

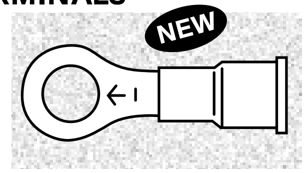
- Various sizes availiable
- Simply insert stripped wire and crimp
- Color-coded for easy identification:
  RED-22 to 18 AWG
  BLUE-16 to 14 AWG
- Sold per box of 100



Part Number		Color	Stud Size	Wire Gauge	100+
43-0680-00	Insulated Fork Term.	Red	4-6	22-18	8.95
43-0681-00	Insulated Fork Term.	Blue	8-10	16-14	8.95

RING TERMINALS

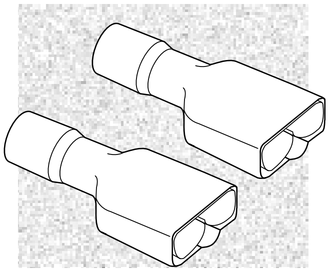
- Vinyl insulated butt seam
- Sold in packs of 100



Part Number	Stud Size	AWG	Price per ea.
43-0784-00	#6	16-22	15.00
43-0785-00	#8	16-22	15.00

QUICK DISCONNECT TERMINALS

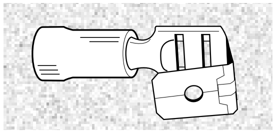
- Translucent insulator provides fast visual check of the wire connection
- Color coded for easy identification:
  Red (22 to 18 AWG)
  Blue (16 to 14 AWG)
- Wire stop prevents insertion of over-stripped wires
- Minimum order 10



Part Number		Price per ea.	L/1000
43-0401-00	.110 Female Fully Insulated Quick Disconnect for use on 18-22 AWG Wire	.36	.32
43-0538-00	.187" Female Fully Insulated Quick Disconnect for use on 18-22 AWG Wire	.14	.12
43-0542-00	.187" Female Fully Insulated Quick Disconnect for use on 14-16 AWG Wire	.14	.12
43-0539-00	.250" Female Fully Insulated Quick Disconnect for use on 18-22 AWG Wire	.14	.12
43-0541-00	.250" Female Fully Insulated Quick Disconnect for use on 14-16 AWG Wire	.14	.12

PIGGY-BACK TERMINAL

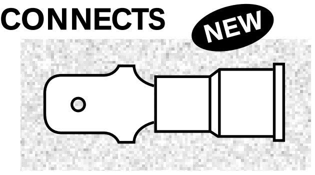
- Insulated
- Terminal size .250



Part No.	Description	Price per ea.
42-2098-00	Piggy-back Terminal	.79

SEMI-INSULATED MALE QUICK DISCONNECTS

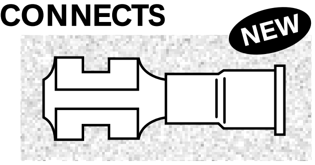
- Vinyl insulated butt seam
- Sold in packs of 100



Part Number	Color	AWG	Terminal	Price per ea.
43-0826-00	Red	18-22	.250	8.50
42-2097-00	Blue	14-16	.250	8.50

SEMI-INSULATED FEMALE QUICK DISCONNECTS

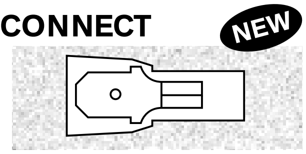
- Vinyl insulated butt seam
- Sold in packs of 100



Part Number	Color	AWG	Terminal	Price per ea.
43-1054-00	Red	18-22	.187	8.50
43-0787-00	Red	18-22	.110	8.50
43-1070-00	Red	18-22	.250	8.50
43-0542-00	Blue	14-16	.187	8.50

FULLY INSULATED MALE QUICK DISCONNECT

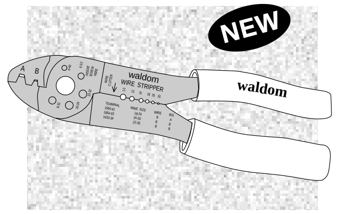
- Fully vinyl insulated butt seam



Part Number	Color	AWG	Terminal	Price per ea.
43-0525-00	Red	18-22	.250	.59

CRIMPING/WIRE STRIPPER/BOLT CUTTING HAND TOOL

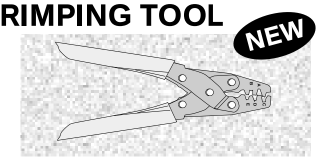
- Ideal for prototype work, small production volumes and repair jobs
- Clean cutting wire cutter
- Wire Stripper for 10,12, 14, 16, 18, and 20 gauge wire
- Bolt Cutter for 8-32, 10-24, 10-32, 6-32, and 4-40 threads
- Crimping tool for .062" & .093" pins (terminals)



Part Number		Price per ea.
11-03-0004	Hand Crimping/Wire Stripper/ Bold Cutting Tool	22.79

SARGEANTS CRIMPING TOOL

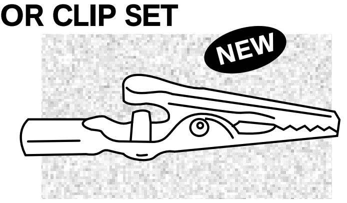
- For crimping .062, .093, .100, .156 and JST pins
- Ref. No. 1028CT



Part Number		Price per ea.
92-0032-00	Sargeants Crimping Tool	34.32

ALLIGATOR CLIP SET

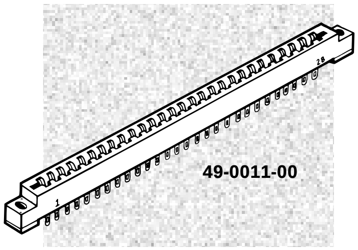
- Set includes 5 red and 5 black alligator clips
- Rubber insulators are 1½" long



Part Number		Price per ea.
43-0825-00	Alligator Clip Set	4.50

EDGE CONNECTORS

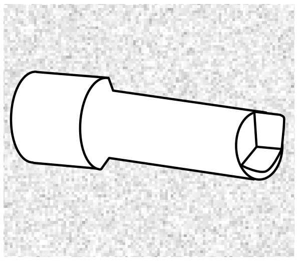
- Dual row connector
- Available in 20, 50 and 72 Pin Configurations



Part Number		Price per ea.	25+
49-0011-00	56 Pin "Jamma" Connector with Solder Terminals	2.75	2.50
49-0011-56	56 Pin "Jamma" Connector for Push-In Terminals (Without Terminals)	2.50	2.30
49-0276-00	Push-In Terminals for 49-0011-56 Edge Connector	.14	—
49-0012-00	72 Pin Connector with Solder Terminals	4.00	3.50
49-0013-00	20 Pin Connector with Solder Terminals	2.75	2.50

CLOSED END CONNECTORS

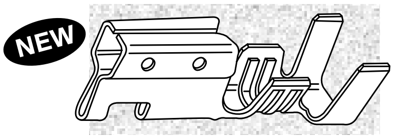
- An easy yet safe way to connect wires together, simply insert stripped wires and crimp
- 22-14 Gauge Wire
- Listed by: UL (E13288) & CSA (LR7189)
- Rated: 90˚C, 300V
- Color: Purple



Part Number		Price per each	100+
43-0174-00	Closed End Connector, 22-14 AWG	0.10	0.09

JAE CONNECTOR

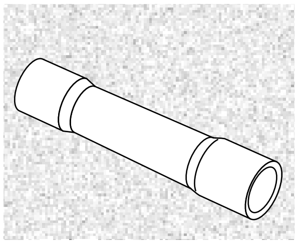
- For miniature brown .060 plug
- Sold in strips of 100



Part Number		Price per ea.
43-0815-00	JAE Connector	12.95

BUTT CONNECTORS

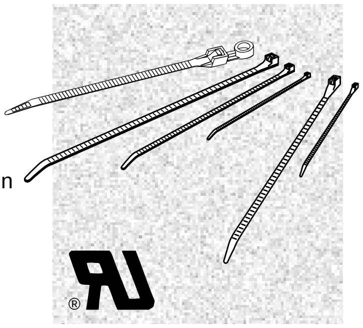
- Insulated for additional protection
- Simply insert stripped wire and crimp
- Various sizes available
- Color-coded to make selection on the job easier
- Minimum order of 100



Part Number		Color	Wire Gauge	Per 100	Per 500+
43-0421-00	Butt Connector	Red	22-18	.10 ea.	.08 ea.
43-0422-00	Butt Connector	Blue	16-14	.10 ea.	.08 ea.
43-0423-00	Butt Connector	Yellow	12-10	.14 ea.	.12 ea.

CABLE TIES

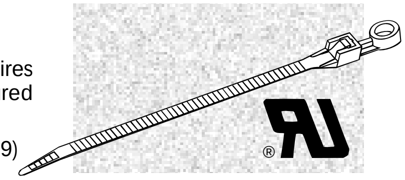
- Patented dual locking mechanism facilitates superior locking power
- Low-profile head conserves space and reduces snagging
- Flexible Nylon construction allows ease of use
- Various colors available
- Sold per bag of 1,000
- UL Recognized (E125869)
- Made in the U.S.A.



Part Number	Length	Max. Bundle Diameter	Color	Tensile Strength	Bag of 1,000	3+ Bags
90-1034-00	4"	$^{13}/_{16}$"	Natural	18 lbs	12.99	10.99
90-1038-00	8"	$2^{3}/_{16}$"	Natural	75 lbs	21.99	19.99
90-1211-00	11"	3"	Natural	75 lbs	39.99	37.99
90-1038-10	8"	$2^{3}/_{16}$"	Red	75 lbs	22.99	20.99
90-1038-12	8"	$2^{3}/_{16}$"	Blue	75 lbs	22.99	20.99
90-1038-13	8"	$2^{3}/_{16}$"	Green	75 lbs	22.99	20.99
90-1038-15	8"	$2^{3}/_{16}$"	Yellow	75 lbs	22.99	20.99
90-1038-16	8"	$2^{3}/_{16}$"	Black	75 lbs.	22.99	20.99
90-1038-17	8"	$2^{3}/_{16}$"	Orange	75 lbs	22.99	20.99

CABLE TIES WITH MOUNTING HOLE

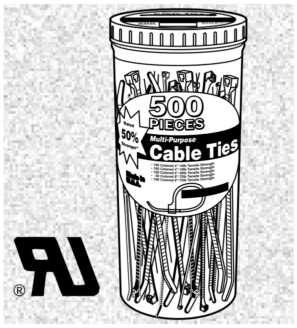
- Same features as cable ties above
- Mounting hole allows wires to be bundled and secured via #10 screw
- UL Recognized (E125869)



Part Number	Length	Max. Bundle Diameter	Color	Tensile Strength	Screw Size	Bag of 1,000	3+ Bags
90-1037-00	7"	$1^{3}/_{4}$"	Natural	50 lbs	#10	44.99	42.99

CABLE TIES ASSORTMENT

- Patented dual locking mechanism facilitates superior locking power
- Low-profile head conserves space and reduces snagging
- Flexible nylon construction allows ease of use
- Various colors contained in assortment
- UL Recognized (E125869)
- Made in the U.S.A.



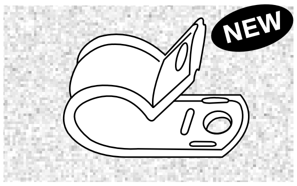
Part Number		Price ea.	3+
90-1030-00	Cable Tie Assortment (500 Pieces)	13.99	11.99

Assortment contains the following Cable Ties:

Qty	Size	Color	Tensile Strength
100	4"	Assorted Colors	18 lbs
100	4"	Natural	18 lbs
100	6"	Natural	30 lbs
50	8"	Assorted Colors	75 lbs
150	8"	Natural	75 lbs

CABLE CLAMPS

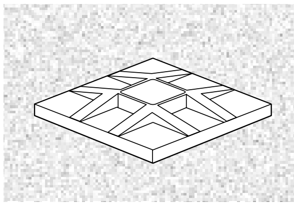
- Plastic clamps for channeling cable and wire
- Maximum operating temperature -600 F to 275º F
- Sold 100 per bag



Part Number		Price per ea.
90-0002-00	3/16"	23.10
90-0007-00	1/4"	10.99
90-0009-00	5/16"	10.99
90-0010-00	3/8"	10.99
90-0006-00	1/2"	10.99
90-0008-00	5/8"	14.99
90-0005-00	3/4"	10.99
90-0001-00	1"	10.99

MOUNTING PADS FOR CABLE TIES

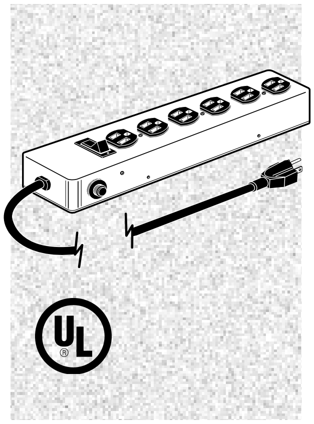
- Adhesive backed to allow flexibility in mounting and securing wires and cables
- Simply peel paper backing and apply to clean dry surface
- Natural color
- Four-Way insertion



Part Number		For Use With	Bag of 100	3+ Bags
90-1031-00	3/4" x 3/4" Mounting Pad	18#, 30#	19.99	18.99
90-1032-00	1" x 1" Mounting Pad	18#, 30#, 50#, 75#	22.99	21.99

6-OUTLET POWER STRIP WITH SURGE PROTECTOR

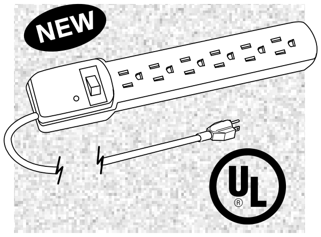
- Ideal for rows of vending machines or games
- Protects equipment from dangerous power surges and spikes that can destroy delicate electronic circuitry
- Lighted ON, OFF switch
- Built-in resetable circuit breaker
- Built-in brackets for easy mounting
- 125V AC, 15 Amps
- Durable metal construction
- Rugged 6 foot cord
- UL listed



Part Number		Price per ea.	6+
49-0487-00	Six Outlet Power Strip with surge	12.99	11.99

POWER STRIP WITH SURGE PROTECTOR

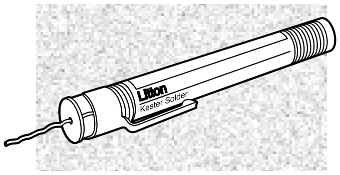
- Protect your equipment from power surges and spikes
- 6 outlets
- Lighted ON/OFF switch
- 4 ft. power cord
- Plastic case
- UL listed



Part Number		Price per ea.	12+
49-0963-00	Power Strip with Surge Protector	7.95	6.95

SOLDER PEN

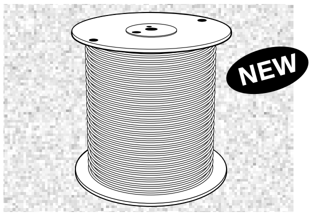
- Handy disposable dispenser with pocket clip
- 12 1/2' of .032 diameter solder
- 60% tin 40% lead, with rosin core



Part Number		Price per ea.	6+
29-1035-00	Solder Pen	2.69	2.39

SOLDER SPOOL

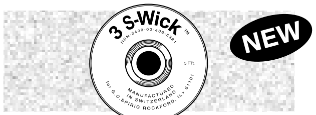
- Activated rosin core solder offers excellent wetting action
- Completely non-corrosive and electrically non-conductive
- 60% tin 40% lead
- . 21 AWG
- 1 lb. spool of solder



Part Number	Gauge	Price per ea.
29-1152-00	0.62	11.99
29-1050-00	0.31	11.99
29-1150-00	0.22	14.95

SOLDERWICK

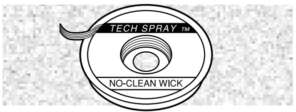
- Pure copper



Part Number	Color Code	Gauge	Price per ea.
29-1149-00	Yellow #2	.06W x .016	2.45
29-1148-00	Green #3	.08W x .028	2.47
29-1147-00	Blue #4	.10W x .028	2.50

DESOLDERING TAPE

- Solderwick #2
- Yellow
- 10' length, .060 width

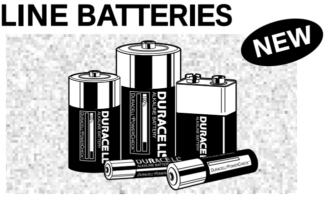


Part Number		Price per ea.
29-1046-00	Desoldering Tape	5.95

DURACELL ALKALINE BATTERIES

- Long lasting industrial quality
- Sold in full packages only

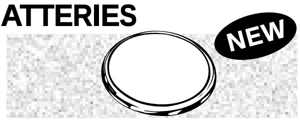
DURACELL®



Part Number	Type	Pack	Price per battery
49-0862-00	D	4	1.69
49-0938-00	C	4	1.69
49-1073-00	AA	8	1.09
49-0863-00	AAA	8	1.09
49-0939-00	9V	2	2.49
49-0854-00	4.5V	1	5.50

LITHIUM BATTERIES

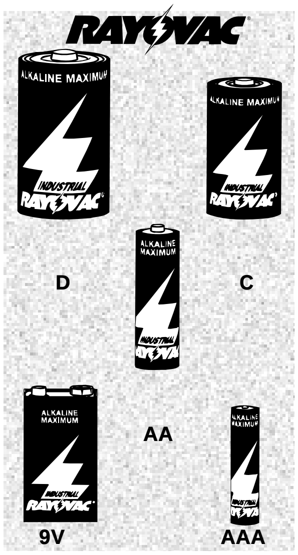
- Various types available



Part Number		Price per battery
49-0857-00	Ref. No. DL2032	2.85
49-0858-00	Ref. No. BR2330	4.43
49-1273-00	Ref. No. BR232572	6.50

RAYOVAC® ALKALINE MAXIMUM™ INDUSTRIAL BATTERIES

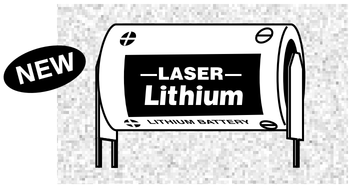
- Formulated specifically to exceed the everyday demands of tough industrial applications
- America's #1 selling industrial batteries
- Outstanding performance dependability – for "must work" applications
- Better for the environment – mercury and cadmium free formula
- Guaranteed against leakage
- Convenient and economical date coded multi-pack packaging – easy to stock and inventory
- Long storage life, typically up to 5 years
- Sold in full packages only


RAYOVAC
ALKALINE MAXIMUM
INDUSTRIAL
D
C
AA
9V
AAA

Part Number	Description	Qty. Per Pack	Price Ea.	Price L/3 Pack
27-1014-D	"D" Battery	6	1.65	1.55
27-1016-C	"C" Battery	6	1.45	1.39
27-1013-AA	"AA" Battery	8	.95	.90
27-1014-9V	"9V" Battery	6	2.85	2.69
27-1013-AAA	"AAA" Battery	8	.97	.90

LASER LITHIUM BATTERY

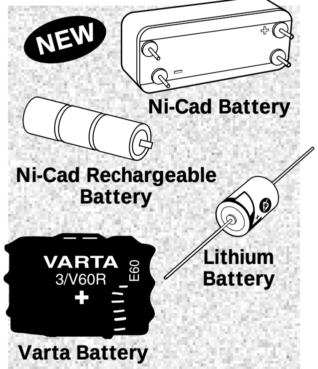
- Size 1/2 AA
- Ref. No. MNO2


NEW
LASER
Lithium
LITHIUM BATTERY

Part Number		Price per ea.
49-0855-00	Laser Lithium Battery	7.95

SPECIALTY BATTERIES

- Used on MPU Boards
- Serves as memory backup for many amusement and vending applications

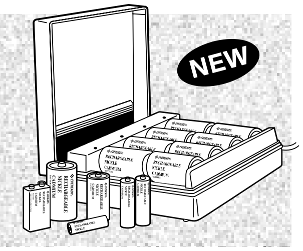

NEW
Ni-Cad Battery
Ni-Cad Rechargeable Battery
Lithium Battery
VARTA
3/V60R
E60
Varta Battery

Part Number		Price per ea.	6+
27-1032-00	2.4V Ni-Cad Battery	8.99	7.99
27-1074-00	3.6V Ni-Cad Battery, Rechargeable	7.59	7.19
27-1002-00	3.6V Lithium Battery w/pigtails, 1/2AA Size	6.99	6.49
27-1236-00	3.6V Lithium With Tabs, 1/2AA Size	8.29	–
27-1040-00	3.6V Lithium With Pigtails, AA Size	8.99	7.99
49-0856-00	3.6V Lithium With Tabs, AA Size	8.99	–
49-0861-00	3/V 60R Varta	7.99	–
49-0860-00	3/V 100R Varta	7.99	–

BATTERY CHARGER

- Charges 2 or 4 AA, AAA, C, D or up to two 9 volt batteries
- 3 hour charge
- Batteries sold separately

EVEREADY

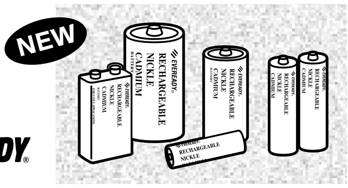


Part Number		Price per each
49-0853-00	Battery Charger	29.64

EVEREADY RECHARGEABLE BATTERIES

- Nickel Cadmium
- Batteries can be stored charged or uncharged
- Sold in full packages only

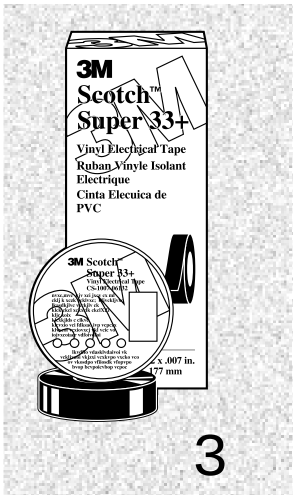
EVEREADY


NEW
RECHARGEABLE
NICKLE
CADMIUM

Part Number	Type	Pack	Price per battery
49-0848-00	D	2	5.99
49-0849-00	C	2	5.99
49-0850-00	AA	4	4.69
49-0852-00	AAA	4	4.99
49-0851-00	9V	1	10.99

3M™ ELECTRICAL TAPE

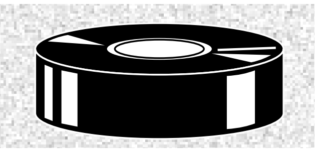
- 3M Scotch Super 33+ Vinyl Electrical Tape, the Industry Standard
- Now it's more flexible, stronger and stickier than ever – especially in cold weather –
- 3M Scotch Super 33+ 7-mil vinyl electrical tape is the professionals' choice
- Highly conformable all-weather tape
- UL listed, CSA certified 0° C to 105° C
- Primary insulation for wire cable splices up to 600 V
- In handy hard plastic container
- $^3/_4$" x 66' Long


3M
Scotch™
Super 33+
Vinyl Electrical Tape
Ruban Vinyle Isolant Electrique
Cinta Elecuica de PVC
3

Part Number		Each	10+
49-0902-00	3M Electrical Tape	4.75	4.25

PLASTIC ELECTRICAL TAPE

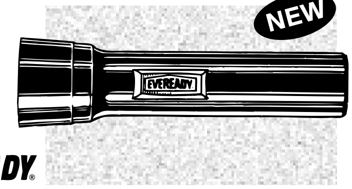
- Dielectric over 10,000 V
- U.L. listed
- 3/4" W x 60 ft.
- Sold in packs of 10 only



Part Number		Price per each
39-0038-00	Plastic Electrical Tape-10 pack	12.99

EVEREADY D CELL FLASHLIGHTS

- Industrial quality
- Heavy duty plastic construction
- Uses 2 “D” cell batteries sold separately

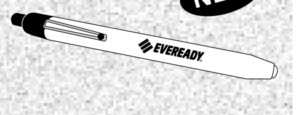


EVEREADY

Part Number		Price per ea.
49-1218-00	With Magnet for Easy Mounting	3.29
49-1219-00	Without Magnet	2.65

EVEREADY POCKET PEN LIGHT

- Uses 2 AAA batteries sold separately
- 12 per box



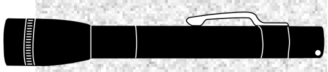
EVEREADY

Part Number		Price per ea.
49-1217-00	Eveready Pocket Flashlight	2.79

MINI MAGLITE FLASHLIGHTS

- High quality flashlights
- With pocket clip
- Color: black
- 12 per box

49-1216-00



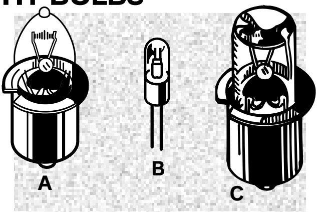
49-1215-00

MAG LITE

Part Number		Price per ea.
49-1216-00	AA Size	14.99
49-1215-00	AAA Size	12.76
49-1230-00	Replacement Bulb	.89

FLASHLIGHT BULBS

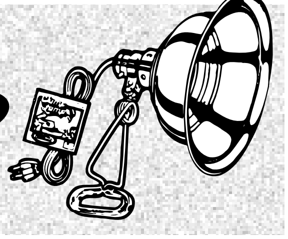
- Long lasting
- High quality
- For use in various flashlight types



Part Number	Type	Ref. #	Price per ea.
49-1225-00	A	PR2	1.59 Card of 2
49-1224-00	A	PR3	.79
49-1230-00	B	Mini-Maglite AA Bulb	.89
91-1125-00	C	222	.70

CLAMP-ON LAMP

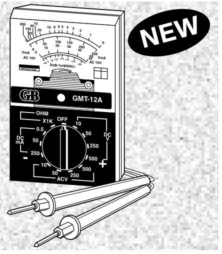
- Great portable light
- Uses standard incandescent bulb (not included)
- 5½" reflector



Part Number		Price per ea.
49-0962-00	Clamp-On Lamp	11.95

5-FUNCTION, 12-RANGE MULTIMETER

- Tests AC/DC voltage, DC current, resistance and decibels
- Includes two safety test leads, instruction manual and battery
- Impact resistant shell
- Conveneient pocket-size instrument

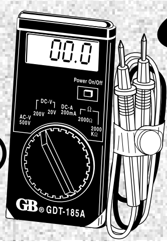


Tester Specifications			
DC Voltage	0-10-50-250-500 Volts	**Accuracy**	DC Voltage ± 4%
AC Voltage	1-10-50-250-500 Volts		AC Voltage ± 5%
DC Current	0-0.5-50-250 mA		Resistance ± 4° Arc of Scale of Length
Resistance	2 Megohms		
Decibels	-20dB to 56dB on AC Volt Ranges	**Sensitivity**	2000 ohms per volt AC and DC

Part Number		Price per ea.
49-0960-00	5-Function, 12-Range Multimeter	21.50

4-FUNCTION, 6-RANGE DIGITAL MULTIMETER

- Tests AC/DC voltage, diodes, resistance and continuity
- Includes batteries, test leads, instruction manual and folding carrying case
- Fused onerload protection
- Easy-to-read 3-1/2 digit LCD display

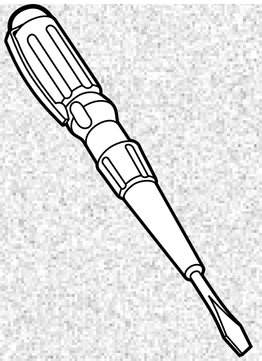


Tester Specifications			
DC Voltage	20-200 Volts	**Accuracy**	DC Voltage ± 1%
AC Voltage	500 Volts		AC Voltage ± 2%
DC Current	200 mA		Resistance ± 2°
Resistance	2000 Ohms		

Part Number		Price per ea.
49-0956-00	4-Function, 16-Range Digital Multimeter	47.00

HI-VOLTAGE TESTING SCREWDRIVER

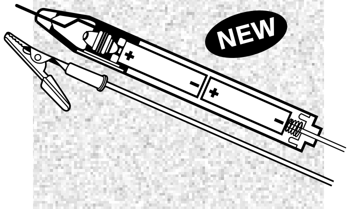
- Combination screwdriver & electrical tester that checks AC voltages from 100 to 500 volts
- Pocket sized, only $^{9}/_{16}$" O.D. and $5^{5}/_{16}$" long
- Simple yet effective in tracing all types of trouble such as grounding lines, open or short circuits
- Instantly tests 110 & 220 volt outlets, fuses and extension cords
- Pushbutton activated light in handle, convenient pocket clip



Part Number		Price per ea.
91-1171-00	Hi-Voltage Testing Screwdriver	3.50

CONTINUITY TESTER

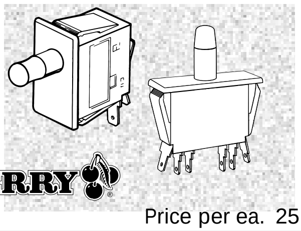
- Checks continuity in cords, fuses and switches with power “off”
- Features an indicator light
- Red and green lights indicate faults
- Uses 2 AAA batteries sold separately



Part Number		Price per ea.
49-0959-00	Continuity Tester	7.99

INTERLOCK SWITCHES

- E68-00A SPDT, 0.1 amp
- E68-01A SPST, 0.1 amp
- E69-00A SPDT, 10 amp
- E69-30A SPDT, 10 amp
- E79-30A DPDT, 10 amp
- E79-40A DPDT, 10 amp
- UL/CSA Listed

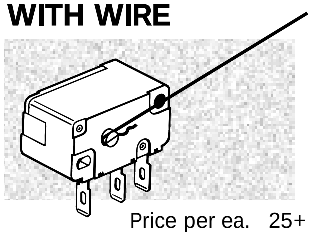


CHERRY

Part Number		Price per ea.	25+
53-7031-00	Interlock Switch, E68-00A	2.95	2.75
53-7025-00	Interlock Switch, E68-01A	2.95	2.75
53-7020-00	Interlock Switch, E69-30A	2.95	2.75
53-7030-00	Interlock Switch, E79-30A	4.30	4.00
53-7028-00	Interlock Switch, E79-40A	4.30	4.00
42-0578-00	Bracket for E68 & E69 Interlock Switches	1.20	1.10
42-1077-00	Bracket for E79 Interlock Switches	1.60	1.50
53-7010-00	Interlock Switch, E69-00A	5.95	5.65

TRIP SWITCH WITH WIRE

- .187 quick connect terminals
- High Cherry quality
- 125 Volt
- 10 Amps

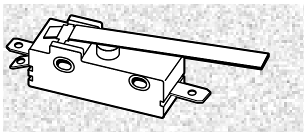


CHERRY

Part Number		Price per ea.	25+
42-0105-00	White Dot Coin Switch, OE51-39RA	3.75	3.05
42-0312-00	Blue Dot Coin Switch, E53-82R	4.15	3.75

HOPPER SWITCHES WITH ACTUATOR

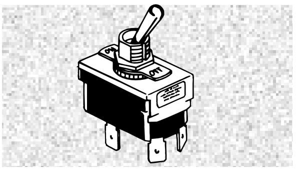
- .250 terminal
- 1-1/2" actuator



Part Number		Amps	Volts	Price per ea.
42-0096-00	E-13-00H	15	125/250	2.64
42-0330-00	G-13-00H	0.1	125	8.01

TOGGLE SWITCHES

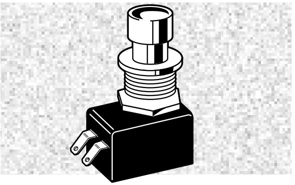
- .250 terminal
- 1/2" mounting hole
- UL/CSA listed



Part Number		Amps	Volts	Price per ea.
H9984622N	Single Pole Double Throw	20	125	9.51
49-0005-00	Double Pole Single Throw	6	125	3.95
49-0031-00	Single Pole Single Throw	20	125	3.60
		10	250	

MOMENTARY SWITCH

- Normally Open
- Single pole single throw
- 3 amp, 125 volt
- 1 amp, 250 volt
- 1/2" mounting hole

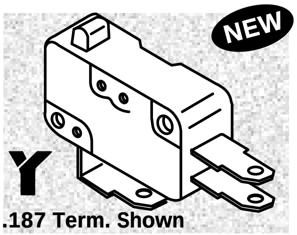


Part Number		Price per ea.
95-0845-00	Momentary Switch	5.08

ZIPPY MICROSWITCH

- For individual replacement of switches for Joysticks or Pushbuttons
- .187" or .25" terminal available

ZIPPY

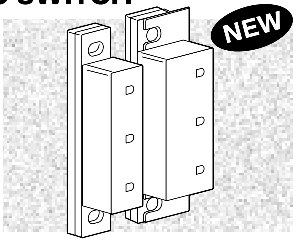


.187 Term. Shown

Part Number		Price per each	100+
95-0733-0Z	Replacement Microswitch .187 Term.	.70	.65
95-4111-0Z	Replacement Microswitch .250 Term.	.70	.65

MAGNETIC SWITCH

- Normally open or normally closed available

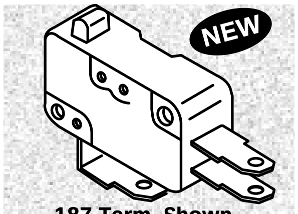


Part Number		Price per ea.	L/50
80-0306-00	Magnetic Switch, Normally Open	2.99	2.75
80-0306-10	Magnetic Switch, Normally Closed	2.99	2.75

SNAP SWITCHES

- High Cherry quality switch
- 75 gram (standard) actuating force
- .187" or .250" terminal available

CHERRY



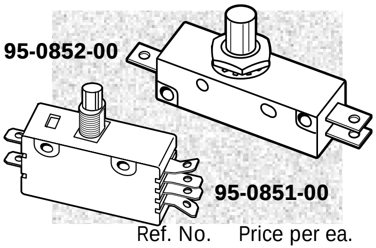
.187 Term. Shown

Part Number	Type	Terminals	Amps	Price per each	100+
95-0733-01	D44	.187"	10	.75	.70
95-4114-00	D41	.187"	0.1	2.50	2.05
95-4111-00	D44	.250"	10	.75	.70
95-4115-03	D41	.250"	0.1	2.50	2.05

SINGLE OR DOUBLE POLE SWITCHES

- .250 terminals
- 125 or 250 volt
- 15 Amp

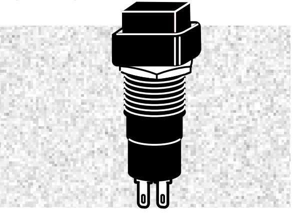
CHERRY



Part Number		Ref. No.	Price per ea.
95-0852-00	Single Pole Door Switch	E13	5.08
95-0851-00	Double Pole Door Switch	E19-00M	5.04

ON-OFF BUTTON

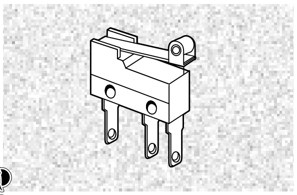
- Push-on push-off
- Red button cap
- ½" x ½" square
- 1½" long
- 3 amp, 250 volt
- .110 terminal



Part Number		Price per ea.
95-0842-00	On/Off Button	1.99

MINI-SNAP SWITCH WITH ROLLER ACTUATOR

- Roller actuator
- .110 terminals
- 0.1 amp 125 volt
- High Cherry quality
- Ref. No. E63-30K

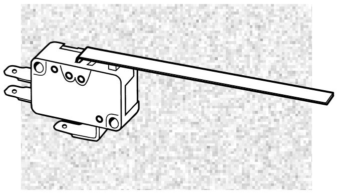


CHERRY

Part Number		Price per ea.	100+
95-4138-00	Mini-Snap Switch With Roller Actuator	2.75	2.50

SNAP SWITCHES WITH STRAIGHT ACTUATORS

- 10 Amps
- 125 Volts
- .187 terminals

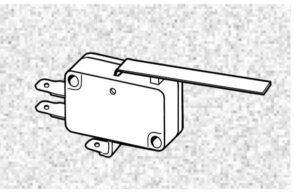


CHERRY

Part Number		Price per ea.
95-0735-00	1" Long Actuator	2.25
95-4214-00	3" Long Actuator	1.32

MINI-SNAP SWITCH WITH ACTUATOR

- Fit All Recent Pinball Games
- 3" long actuator
- 0.1 amp, 125 volts
- .110 terminals

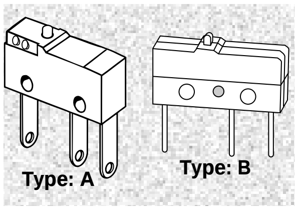


CHERRY

Part Number		Price per ea.	100+
95-4183-00	Mini-Snap Switch w/Flat Actuator	2.60	2.05
95-4170-00	Mini-Snap Switch w/Wire Actuator	2.60	2.05

MINIATURE SNAP SWITCHES

- Used for VLT buttons
- .110 terminals
- 125 volts

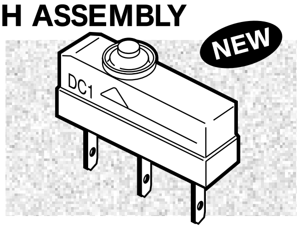


CHERRY

Part Number	Amps	Actuator	Type	Contacts	Price per ea.
95-4117-00	0.1	Green	A	Gold	2.50
95-4118-00	0.1	Yellow	A	Silver	2.50
95-4139-00	10	Red	B	Tungston	2.00

CHERRY WATERPROOF THUMBSWITCH ASSEMBLY

- Waterproof and dust proof
- 5 amps
- 125/250 Volts
- .110 terminals

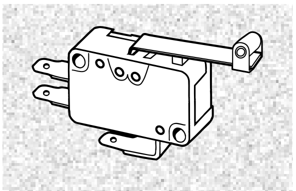


CHERRY

Part Number Price per ea.			100+
95-0863-00	Waterproof Thumbswitch Assembly	1.75	1.49

LONG ARM SWITCH WITH ROLLER ACTUATOR

- 10 amps
- 125/250 volts
- .250 terminals

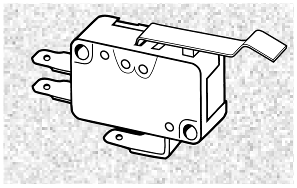


CHERRY

Part Number		Price per ea.	12+
50-8018-20	Long Arm Switch w/Actuator	3.50	2.95

SNAP SWITCHES WITH BENT ACTUATORS

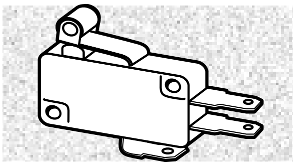
- 10 amps
- 125 volts



Part Number		Price per ea.
95-0859-00	Snap Switch for Reel Mech	5.08
95-0860-00	Snap Switch for Hopper	4.06

SNAP SWITCHES WITH ROLLER ACTUATORS

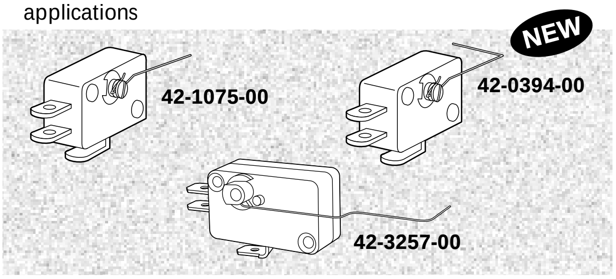
- 10 amps
- 125volts
- .187 terminals



Part Number		Price per ea.
95-0846-00	Snap Switch with Roller Actuator	4.37

COIN SWITCHES

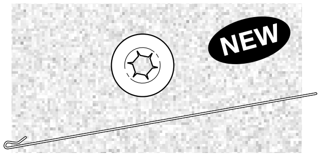
- Available with straight wire or custom bend to fit specific applications



Part Number		Price per ea.	100+
42-1075-00	Coin Switch Assembly w/straight wire	2.75	2.25
42-0394-00	Coin Switch Assembly w/Bend for Happ Coin Doors	2.90	2.40
42-3257-00	Coin Controls Coin Switch with Formed Actuator Ref #91-1116-16	3.60	3.19

COIN SWITCH WIRE AND RETAINER

CHERRY

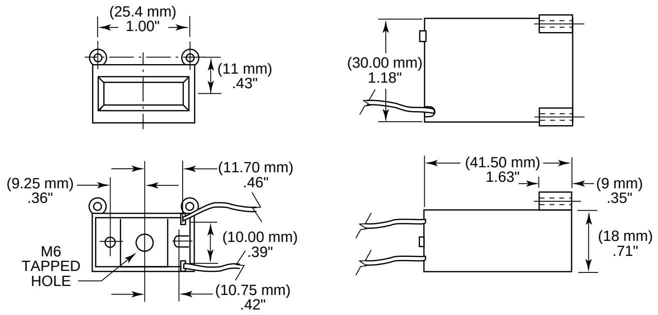


Part Number		Price per ea.
42-0200-00	3¼" Hair Clip Style Wire	.18
95-4186-00	Wire Retainer (Push Nut)	.10

HAPP 6-DIGIT METER

- 6 digit non-resettable
- Low cost, small size
- Internal diode
- Flying leads
- Service life: 1,000,000 cycles
- Low power consumption: 1.3 watt
- High speed: 25 counts per second
- High quality – each meter tested at max speed for 5,000 counts before shipment
- Without mounting bracket

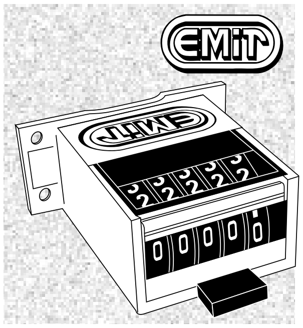
HAPP CONTROLS
106 GARLISCH DRIVE
ELK GROVE, IL 60007
847-593-6130
000000
HAPP CONTROLS

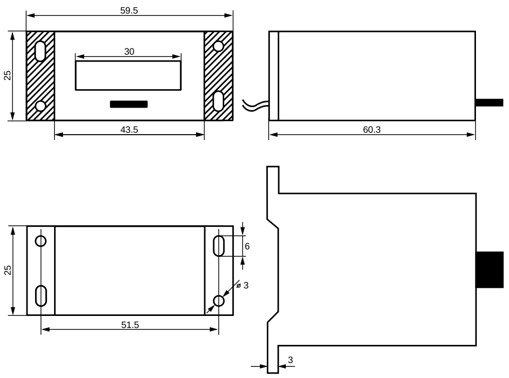

(25.4 mm)
1.00"
(11 mm)
.43"
(30.00 mm)
1.18"
(9.25 mm)
.36"
(11.70 mm)
.46"
M6 TAPPED HOLE
(10.00 mm)
.39"
(10.75 mm)
.42"
(41.50 mm)
1.63"
(9 mm)
.35"
(18 mm)
.71"

Part Number		Price per ea.	100+
42-0756-00	5vdc 6-digit Meter (also rated 6vdc)	4.95	4.50
42-0750-00	12vdc 6-digit Meter	4.95	4.50
42-1178-00	24vdc 6-digit Meter	4.95	4.50

EMIT 5-DIGIT RESETTABLE METER

- 5 digit resettable
- Service life: 1,000,000 cycles
- High speed: 15 counts per second
- Flying leads
- Without diode
- Includes mounting bracket

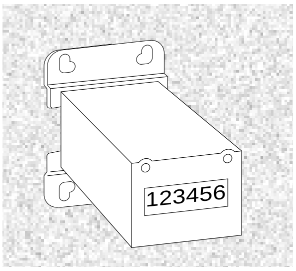



59.5
30
25
43.5
60.3
25
6
3
51.5
3

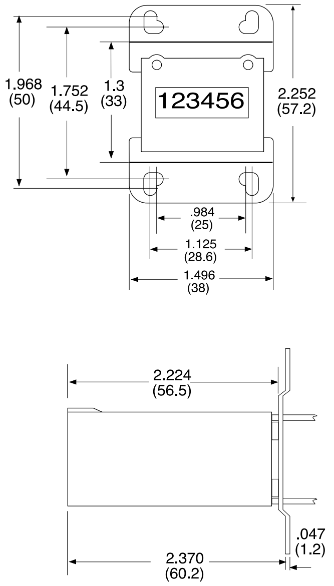
Part Number		Price per ea.	100+
42-0761-00	6vdc 5-Digit Resettable Meter	12.99	11.99
42-0755-00	12vdc 5-Digit Resettable Meter	12.99	11.99

KESSLER ELLIS 6-DIGIT METER

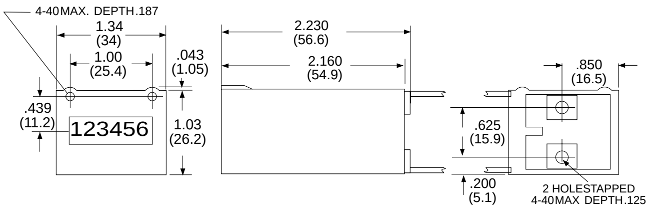
- Electric, non-resettable counter
- 6 digit, counts to 999,999, then repeats
- 600 counts per minute
- With mounting bracket
- With or without diode
- 10" wire leads



6-DIGIT METER W/BRACKET DIMENSIONS


1.968
(50)
1.752
(44.5)
1.3
(33)
123456
2.252
(57.2)
.984
(25)
1.125
(28.6)
1.496
(38)
2.224
(56.5)
.047
(1.2)
2.370
(60.2)

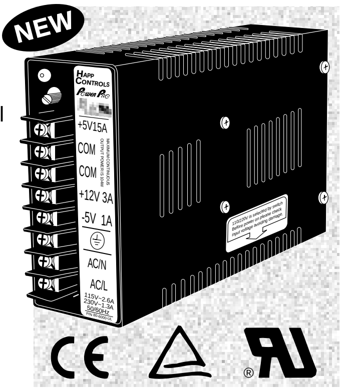
6-DIGIT METER WITHOUT BRACKET DIMENSIONS


4-40MAX. DEPTH.187
1.34
(34)
1.00
(25.4)
.043
(1.05)
.439
(11.2)
123456
1.03
(26.2)
2.230
(56.6)
2.160
(54.9)
.850
(16.5)
.625
(15.9)
.200
(5.1)
2 HOLESTAPPED
4-40MAX DEPTH.125

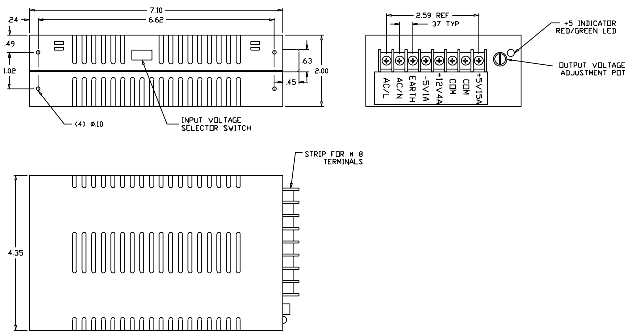
Part Number	Voltage	Bracket	Diode	Price Per Ea.	24+
42-1168-00	4.5/6 DC	Yes	No	4.50	4.25
42-2093-00	4.5/6 DC	Yes	Yes	5.00	4.75
42-2093-01	4.5/6 DC	No	Yes	5.00	4.75
42-0614-00	12 DC	Yes	Yes	5.00	4.75
42-0092-00	12 DC	Yes	No	4.70	4.45
42-6914-00	12 DC	No	Yes	5.00	4.75
42-1317-00	24 DC	Yes	No	4.70	4.45
42-3140-00	24 AC	Yes	No	5.50	5.25
42-7032-00	24 DC	Yes	Yes	5.75	5.20
42-1396-00	48 AC	Yes	No	5.50	5.25
42-1167-00	120 AC	Yes	No	5.50	5.25
42-1169-00 (72" Leads)	120 AC	Yes	No	5.95	5.70

POWER PRO UL, CE, TUV 15 AMP POWER SUPPLY

- +5v 15A, +12v 2A, -5v 1A
- UL, CE, TUV recognized
- 104 watts of power
- Will accept wide #8 Terminal
- 15 amp supply
- 115-230 vac switchable
- Easy start-up
- LED Power on indicator
- Overload protection


NEW
HAPP CONTROLS
Power Pro
+5V15A
COM
COM
+12V 3A
-5V 1A
AC/N
AC/L
115V~2.6A
230V~1.3A
50/60Hz

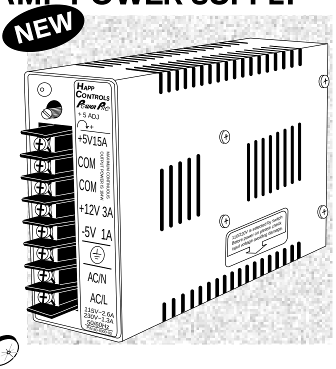
Overall Dimensions


7.10
6.62
.24
.49
1.02
.63
2.00
.45
(4) ⌀.10
INPUT VOLTAGE SELECTOR SWITCH
2.59 REF
.37 TYP
+5 INDICATOR RED/GREEN LED
OUTPUT VOLTAGE ADJUSTMENT POT
+5V15A
COM
COM
+12V4A
-5V1A
EARTH
AC/N
AC/L
STRIP FOR # 8 TERMINALS
4.35

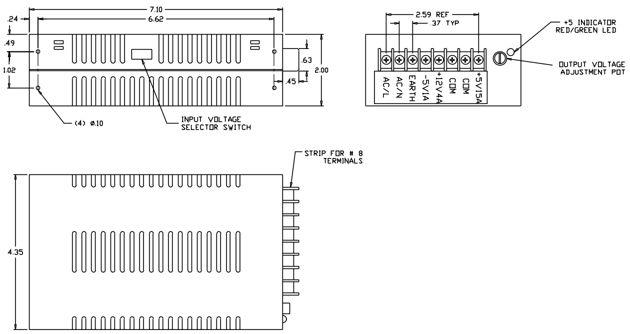
Part Number		Price per ea.	L/20
80-6000-UL	Power Pro UL, CE, TUV, 15 AMP Power Supply	28.25	26.25

POWER PRO 15 AMP POWER SUPPLY

- +5v 15A, +12v 2A, -5v 1A
- 104 watts of power
- Will accept wide #8 Terminal
- 15 amp supply
- 115-230 vac switchable
- Easy start-up
- LED Power on indicator
- Overload protection


NEW
HAPP CONTROLS
Power Pro
+5 ADJ
+5V15A
COM
COM
+12V 3A
-5V 1A
AC/N
AC/L
115V~2.6A
230V~1.3A
50/60Hz

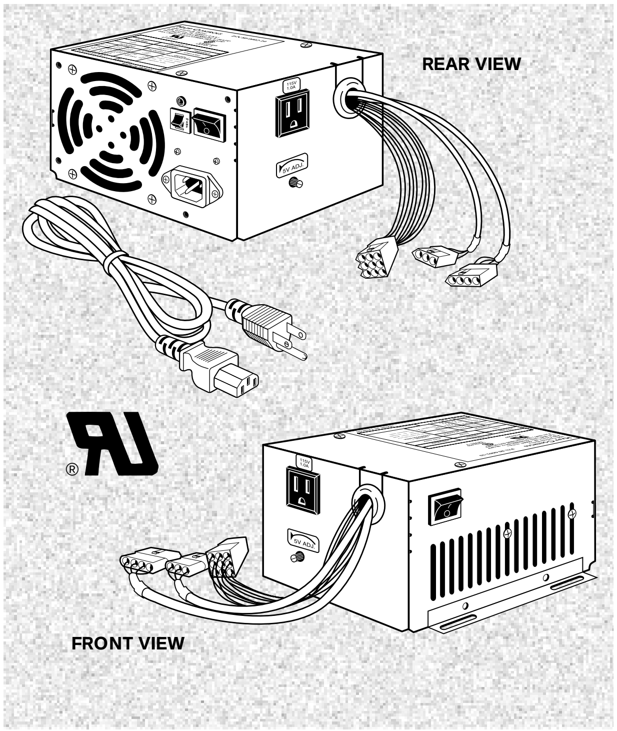
Overall Dimensions


7.10
6.62
.24
.49
1.02
.63
2.00
.45
(4) ⌀.10
INPUT VOLTAGE SELECTOR SWITCH
2.59 REF
.37 TYP
+5 INDICATOR RED/GREEN LED
OUTPUT VOLTAGE ADJUSTMENT POT
+5V15A
COM
COM
+12V4A
-5V1A
EARTH
AC/N
AC/L
STRIP FOR # 8 TERMINALS
4.35

Part Number		Price per ea.	L/20
80-6000-00	Power Pro 15 AMP Power Supply	25.95	24.00

DUAL AND REMOTE SWITCH 200 WATT POWER SUPPLY

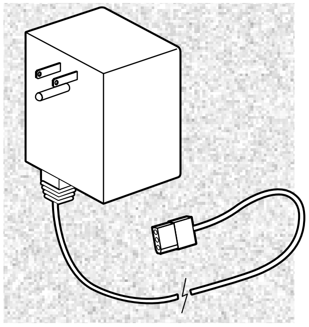
- Powerful 200 watt power supply
- New Innovative Dual On/Off & Remote switch capable design
- One switch on back and other on front of power supply to allow easy access to turn power On/Off
- 115-230 VAC switchable
- AC plug for hook-up of Bill Validator
- Metal case - AT size
- +5v 20A, +12v 8A, -5v .5A, -12 .5A, SJT CORD TYPE
- Physical Size: 3 1/2" High x 5 7/8" Wide x 5 1/2" Deep
- UL E134015


REAR VIEW
5V ADJ
FRONT VIEW

Part Number		Price per 1-24	25+
80-0002-10	200 Watt Dual Switch & Remote Capable Power Supply	44.95	43.95

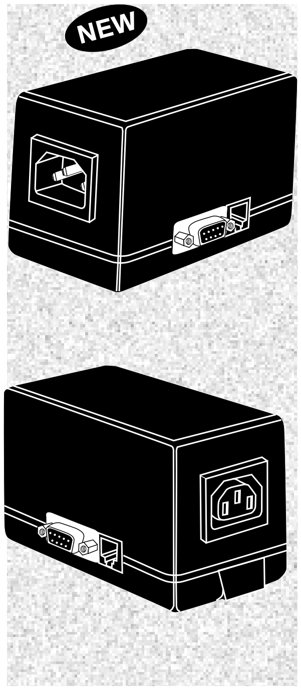
POWER SUPPLY FOR INTERFACE KITS

- Supplies the required voltage +5v DC for Trackball Interface Systems
- Simply plug into electrical outlet and connect to Trackball Interface System
- 110VAC input: +5v DC 600 ma output
- Will light +5v DC Illuminated Pushbuttons



Part Number		Price per ea. 1-24	25+
80-0041-00	Power Supply for Interface Kits	19.00	18.00

WATCHDOG REMOTE COMPUTER POWER CONTROLLER

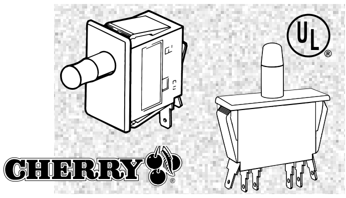


- Provides a complete automatic control over a kiosk or any unattended personal computer, file server, gateway and/or modem
- Fully programmable timer and AC power switch with a built-in RS-232 interface and a telephone ring detector
- UL, CSA, FCC and EC approvals
- Powers down and restarts an attached PC and/or modem
- Software available for MS-DOS, Windows 3.1x and 96/NT
- Utilizes a MicroChip PIC12C508 RISC micro-controller, operating at approx. 1 million instructions per second. Performs the timing functions, controls a power relay, monitors a telephone line for ring signals and manages 2400 baud communications.
- Power Relay rated at 8 amps at 120/240 volts AC. Load may be either resistive or inductive. No minimum load
- Switches power at a near-zero-voltage-crossing to minimize stress on the attached PC.
- Case size: 2” x 2.6” x 3.9”
- IEC connectors
- Communications: DB-9 female jack
- Telephone: RJ-11 jack
- Switching capacity: 120/124 volts 50/60 cycle (8 amperes)

Part Number		Price per ea.	L/12	L/24
80-1118-00	Watchdog Remote Computer Power Controller	150.00	140.00	130.00

INTERLOCK SWITCH

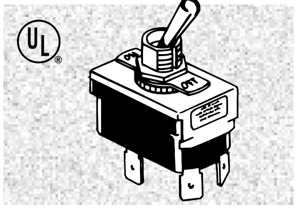
- E68-00A SPDT, 0.1 amp
- E68-01A SPST, 0.1 amp
- E69-00A SPDT, 10 amp
- E69-30A SPDT, 10 amp
- E79-30A DPDT, 10 amp
- E79-40A DPDT, 10 amp
- UL/CSA Listed



Part Number		Price per ea.	25+
53-7031-00	Interlock Switch, E68-00A	2.95	2.75
53-7025-00	Interlock Switch, E68-01A	2.95	2.75
53-7010-00	Interlock Switch, E69-00A	5.95	5.65
53-7020-00	Interlock Switch, E69-30A	2.95	2.75
53-7030-00	Interlock Switch, E79-30A	4.30	4.00
53-7028-00	Interlock Switch, E79-40A	4.30	4.00
42-0578-00	Bracket for E68 & E69 Interlock Switches	1.20	1.10
42-1077-00	Bracket for E79 Interlock Switches	1.60	1.50

ON/OFF SWITCH

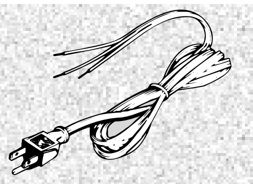
- 6A 125 VAC
- Double pole single throw
- UL/CSA listed



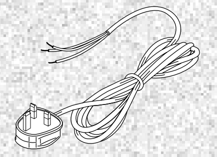
Part Number		Price per ea. 1-24	25+
49-0005-00	On/Off Switch	3.95	3.50

POWER SUPPLY CORDS

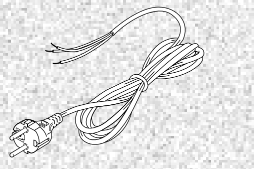
- 10 foot cord (unless noted)
- UR E58406
- 18 AWG/3 wires
- Round type – SJT
- 105°C temperature



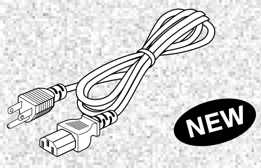
80-1200-00 NAFTA



80-1202-00 U.K.



80-1203-00 EUROPE

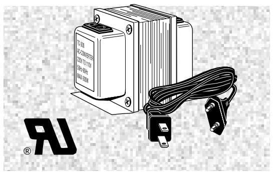


80-1205-00 UNIVERSAL
80-0213-00 UNIVERSAL

Part Number		Price per ea. 1-24	25+
80-1200-00	NAFTA Power Supply Cord – Round	2.75	2.50
80-1202-00	U.K. Style Power Cord	8.60	7.75
80-1203-00	European Style Power Cord	8.00	7.15
80-1205-00	Universal Power Cord F/Power Supplies, 6 Feet	4.00	3.70
80-0213-00	Universal Power Cord, 8 ft., 16 Gauge	8.95	8.45

STEP DOWN TRANSFORMER

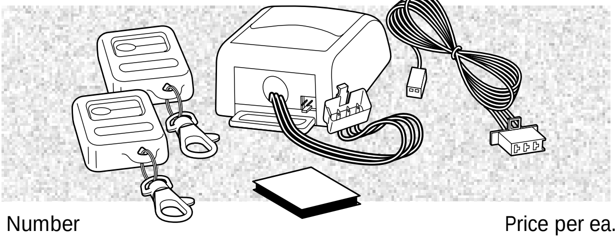
- AC Converter
- Allows operation of U.S. video games and other equipment in other countries
- Converts 220 VAC to 110 VAC or 110 VAC to 220 VAC
- 50Hz-60Hz
- Maximum 300 Watts



Part Number		Price per ea.
80-0044-00	STEP DOWN Transformer (UL)	75.00

RF REMOTE

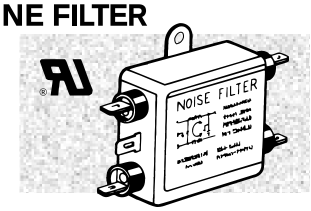
- For use in various applications where remote switching access is required
- RF Remote control system with 1 button Transmitter
- A press of the button on transmitter activates relay for 2 seconds
- Non-programmable



Part Number		Price per ea.
49-0712-00	Poker Remote Control, Non-Programmable	39.00
49-0712-00S	Replacement Transmitter Only	9.50

POWERLINE FILTER

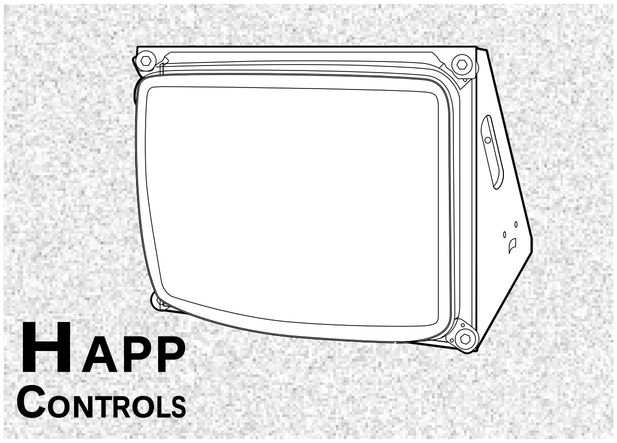
- Eliminates power spikes
- Quick connect terminals (.250)
- 115/250V 10A
- UL listed



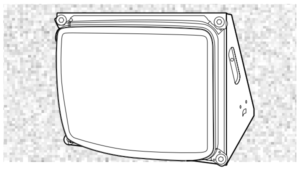
Part Number		Price per ea. 1-24	25+
49-1003-00	Powerline Filter	7.25	6.50

HAPP CONTROLS MONITORS

HAPP CONTROLS has a proud history of listening to what our customers want, and going out and getting the job done. By listening to our customers needs, and with the knowledgeable help of our engineering department, Happ Controls introduces our own line of top quality, 1st rate monitors. Below are the monitors we are proud enough to put our name on!



HAPP CONTROLS 13" SHELF MOUNT MONITOR



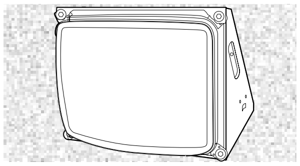
- Increase your games profits with this top quality monitor; it's a great replacement for that game's old, worn down monitor
- Easy retrofit with a 4' power cord that has the same industry standard 3-pin Amp power connector as Wells-Gardner monitors at one end, and 2 stripped wires at the opposite end
- Open frame design
- Front controls board makes adjusting easy
- Goldstar picture tube
- CGA Resolution
- No isolation transformer required
- Call for mounting dimensions and schematics

Part Number		Price per ea.
49-1345-00	Happ Controls 13" Monitor	199.95

SPECIFICATIONS FOR HAPP CONTROLS 13" & 19" MONITORS

MAIN INPUT	120 V a.c., + 10%, - 15%, 50/60 Hz; No isolation transformer required
POWER CONSUMPTION	70w
VIDEO BAND	8 MHz
VIDEO INPUT	RGB separate
DEGAUSSING	Automatic degaussing at power on
SYNC. INPUT	Separate horizontal and vertical (negative or positive) Composite horizontal and vertical (negative or positive)
SCANNING FREQUENCIES	Horizontal 15.75 Khz nominal Vertical 50 or 60 Hz nominal

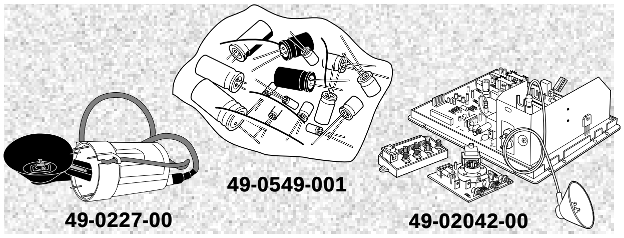
HAPP CONTROLS 19" SHELF MOUNT MONITOR



- This 19" monitor has great visual clarity and color making playing your game a pleasurable experience. No eye straining because of blurring or fading color
- Open frame design
- Front controls board makes adjusting easy
- Goldstar picture tube
- CGA Resolution
- Easy retrofit with a 4' power cord that has the same industry standard 3-pin Amp power connector as Wells-Gardner monitors at one end, and 2 stripped wires at the opposite end
- No isolation transformer required
- Call for mounting dimensions and schematics

Part Number		Price per ea.
49-1329-00	Happ Controls 19" Monitor	205.75

REPLACEMENT PARTS FOR HAPP CONTROLS MONITORS

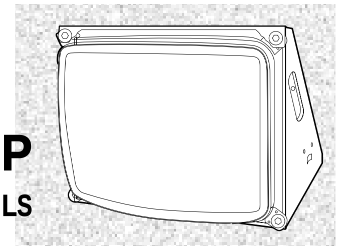


Part Number		Price per ea.	L/10
49-0227-00	Flyback Transformer for Happ Controls 19" Monitor	45.99	—
49-0549-001	Monitor Repair Kit for Happ Controls 13" & 19" Monitors	7.95	6.95
49-2042-10	Chassis for Happ Controls 13" Monitor	99.95	—
49-2043-10	Chassis for Happ Controls 19" Monitor	99.95	—

HAPP CONTROLS VGA MONITORS

NEW

HAPP CONTROLS



- Delivers high performance video!
- "A"quality CRT
- Open frame, shelf mount style
- 640 x 480 graphics mode
- External control board
- No isolation transformer required
- Call for mounting dimensions and schematics

Part Number		Price per ea.
49-1337-00	19" VGA Monitor	285.95
49-1342-00	13" VGA Monitor	269.95

PERFORMANCE AND OPERATING DATA

POWER SUPPLY Switch mode power supply
Dual AC input range
Jumper selectable
No isolation transformer required

PICTURE SIZE REGULATION 2%

GEOMETRIC DISTORTION – plus or minus 1.5% (max)

ENVIRONMENTAL CONDITIONS –Temperature 100 ~ 550C
Humidity 10~90%, no condensation

HIGH VOLTAGE 13"=23KV, 20"=25KV, with integral
X-radiation
Shut-down protection

DEGAUSSING Automatic, operating at beginning of each power-up cycle, provided the monitor has been turned off for at least 20 minutes.

REFERENCE CHART FOR VGA MONITORS

PICTURE TUBE	19V" CRT, 0.82 mm dot pitch, flat screen 13V" CRT, 0.28 mm dot pitch, flat screen
DISPLAY COLORS	Infinite color, analog 0.7 V p-p positive
SYNC. SIGNAL	TTL positive or negative
BAND WIDTH	25 MH
FREQUENCY	31.5 KHz (capture range 30.5~32.5KHz)
RESOLUTION	Mode 1. 640 x 350 (70Hz refresh) Mode 2. 640 x 400 (70 Hz refresh) Mode 3. 640 x 480 (60Hz refresh)
INPUT TERMINAL	15-pin D-Sub connector
POWER SUPPLY	120 – 220 VAC, 50 – 70 Hz
POWER CONSUMPTION	90 W
EXTERNAL USER CONTROLS	Brightness, Contrast, H-size, H-position, V-size, V-hold, V-position

INPUT SIGNAL Video – RGB analog, positive, 0.7 Vp-p.
Impedance –75 ohms, terminated.
Rise Time –less than 25 nanoseconds.
Bandwidth –DC to 25 MHz (at –3dB)
typical VGA Mode 3.

Resolution –Mode
1. 640 x 350 (70Hz refresh)
2. 640 x 400 (70Hz refresh)
3. 640 x 480 (60Hz refresh)

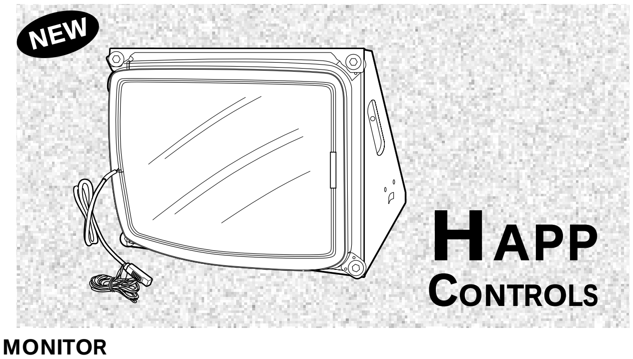
Sync. – TTL, positive or negative. Monitor circuitry will automatically determine and adjust for VGA operation.

Horizontal Scan –Frequency 31.5KHz nominal
Capture range –30.5~32.5KHz
Active video –full width display of video signals with active video from 25 to 28usec.
Linearity –plus or minus 5%

Vertical Scan –Frequency 60/70Hz
Capture range 47~85Hz
Linearity –plus or minus 5%

HAPP CONTROLS 19" VGA ELO TOUCHSCREEN MONITOR WITH CONTROLLER

NEW



MONITOR
- Delivers high performance video!
- 640 x 480 graphics mode with .82 mm dot pitch
- Open frame shelf mount style
- No isolation transformer required
- Furnished with 15-pin D-Sub connector to plug into video connector on PC

TOUCHSCREEN
- Utilizes ELO IntelliTouch touchscreen system with Surface Acoustic Wave (SAW) technology
- Screen is glass –not a plastic overlay, impervious to cleaning solvents
- Screen is 100% light transmissive
- Largest active touch area available

OTHER
- Touchscreen and monitor are fully integrated
- Dust-proof foam gasket is provided between CRT and touchscreen
- No external power is needed –controller is mounted on monitor chassis and derives its power from the monitor
- Controller connects to the PC with a 48" 9-pin D-Sub serial cable supplied
- Software driver included with updates available on ELO's web site
- Touchscreen can replace a mouse for any function

INSTALLATION
- Connect the 9-pin serial cable to a serial port
- Set PC for VGA 640 x 480 graphics mode
- Connect the 15-pin monitor cable to a PC video connector
- Plug monitor in to a 120 vac outlet
- Insert disk, click on self extracting file and read instructions

Part Number	Price per ea	
49-2089-00	Happ Controls 19" VGA Touchscreen Monitor	699.00

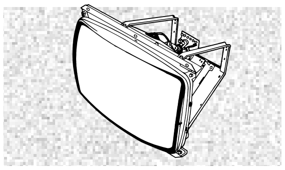
Contact Happ Controls for all your ***Monitor*** needs

WELLS-GARDNER MONITORS

- The No. 1 Monitor in the Amusement Industry
- ISO 9001 Certified
- High Clarity with True Colors
- Standard Wells-Gardner 1 year warranty
- UL listed, C.S.A. Certified
- Prismatic Color

WELLS-GARDNER
ELECTRONICS CORPORATION

WELLS GARDNER SERIES U3000 MONITORS



SPECIFICATIONS
- CRT Size (Diagonal Measure): 14”, 19”, 27”, 33”
- PHOSPHOR Type: P22
- CRT Etch: Polished Faceplate
- Phosphor Trio Spacing: 0.28mm or 0.39mm (14”), 0.71mm (19”) 0.84mm (27”), 0.89mm (33”)

INPUT SIGNALS
- Input Connector: 15 pin D-sub male; VGA compatible
- Video Type: RGB Analog
- Video Input Impedance: 75 Ohm: 470 Ohm optional
- Video Level: 0.7 Volts Peak-To-Peak
- Sync Type: Standard VGA/SVGA TTL sync; composite optional
- Sync Input Impedance: 4.7K Ohm
- Horizontal Sync Frequency: 31.5, 35 kHz (14”,19”) 31.5Khz (27”,33”)
- Vertical Sync Frequency: 56 to 70 Hz (14”,19”) 60 to 70Hz (27”,33”)

LIGHT OUTPUT
- 40 fl typical

GEOMETRY
- Horizontal linearity: +/- 5% (14”,19”,33”) +/- 7% (27”)
- Vertical linearity: +/- 5%
- Picture size regulation: 1%
- Geometric distortion: +/- 2% max

POWER INPUT
- Input Voltage: 90-264 VAC, 50-70 Hz; (14”,19”) 50-60Hz (27”,33”)
  No Isolation Transformer Required
- Maximum Power: 130 Watts (14”,19”) 160 Watts (27”,33”)

USER CONTROLS
- Remote Controls: Brightness, Contrast, Horizontal Size, Horizontal Centering, Vertical Size, Vertical Centering
- Internal Controls: Horizontal Frequency, Vertical Frequency, Vertical Linearity, Focus (14”,19”) Horizontal hold, Vertical hold, Vertical linearity focus (27”,33”)

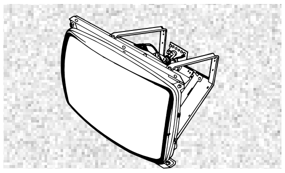
MISCELLANEOUS
- Operating Temperature: 0 to 55 Degrees C
- Agency Compliance: UL, CSA, DHHS Radiation Performance Std., TUV

RESOLUTION
- Graphic Modes: VGA 640 x 200, 640 x 350, 640x480 SVGA 800x600 (14”,19”); 640x200, 640x350, 640x480 (27”,33”)
- Video Bandwidth: 25 MHz Typical

Wells-Gardner Warranty: 1 Year

Model No.	Description	Happ No.	Price per each
WGM1430-M7AS50E	14" VGA/SVGA Horizontal Mount	49-0832-00	405.00
WGM1930-HOBS42E	19" VGA/SVGA Horizontal Mount	49-0681-00	424.95
WGM2730-UOTS55F	27" VGA Universal Mount	49-0930-00	699.95
WGM3331-UOTS59G	33" Mid-resolution Universal Mount	49-0833-00	925.00
WGM3332-HOTS65G	33" VGA Horizontal Mount	49-0831-00	1,049.00

WELLS GARDNER SERIES U3100 MONITORS



SPECIFICATIONS
- CRT Size (Diagonal Measure): 14”, 19”
- PHOSPHOR Type: P22
- CRT Etch: Polished Faceplate
- Phosphor Trio Spacing: 0.28mm (14”), 0.71mm (19”)

INPUT SIGNALS
- Input Connector: 15 pin D-sub high density male; VGA compatible
- Video Type: RGB Analog
- Video Input Impedance: 75 Ohm: 470 Ohm optional
- Video Level: 0.7 Volts Peak-To-Peak
- Sync Type: Standard VGA/SVGA TTL sync; composite optional
- Sync Input Impedance: 470 Ohm (H Sync) 1K Ohm (V sync)
- Horizontal Sync Frequency: 31.5, 35.5 kHz
- Vertical Sync Frequency: 56 to 87 Hz

LIGHT OUTPUT
- 30 fl typical

GEOMETRY
- Horizontal linearity: +/- 5%
- Vertical linearity: +/- 5%
- Picture size regulation: 2%
- Geometric distortion: +/- 2% max

POWER INPUT
- Input Voltage: 90-264 VAC, 50-70 Hz;
  No Isolation Transformer Required
- Maximum Power: 90 Watts Typical (19”)

USER CONTROLS
- Remote Controls: Brightness, Contrast, Horizontal Size, Horizontal Centering, Vertical Size, Vertical Centering
- Internal Controls: Horizontal Frequency, Vertical Frequency, Vertical Linearity, Focus, G2 screen

MISCELLANEOUS
- Operating Temperature: 0 to 55 Degrees C
- Agency Compliance: UL, CSA, DHHS Radiation Performance Std., TUV

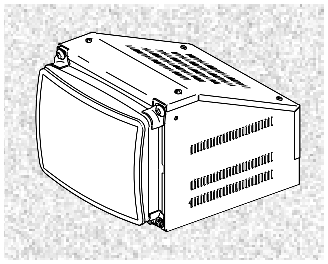
RESOLUTION
- Graphic Modes: VGA 640x200, 640x350, 640x480, SVGA 800x600, 1024x768 (Interlaced)
- Video Bandwidth: 22 MHz Typical

Wells-Gardner Warranty: 1 Year

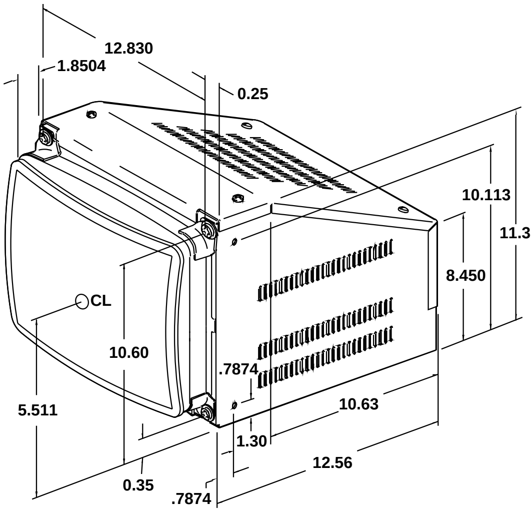
Model No.	Description	Happ No.	Price per each
WGM1431-M1DM07H	14" VGA/SVGA Universal Mount	49-0830-00	325.00
WGM1931-M2TS26H	19" VGA/SVGA Universal Mount	49-0829-00	399.95

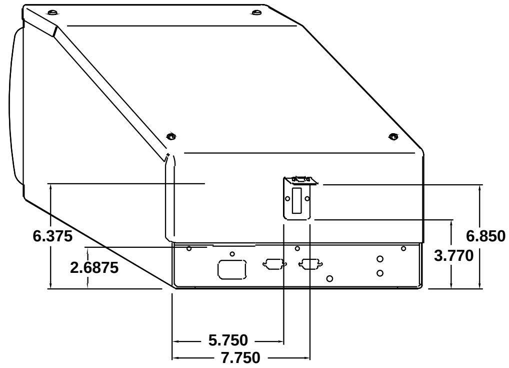
Part Number		Price per 10+	100+
43-0778-00	AMP Terminal Male for use on Wells Gardner 3-pin Power Connector Amp Ref. 350690-1	.20	.15
43-0779-00	AMP 3 Circuit Mate-N-Lock Plug for use on Wells Gardner 3-pin Power Connector Amp Ref. 1-480700-0	.45	.35

15” SVGA MONITOR



- Size: 15”, Diagonal, 90 Degree
- Dot Pitch: 0.28 mm
- Resolution Horizontal: 1280, Vertical 1024
- Compatibility: SVGA
- Signal Cable: 15 Pin D-Type Male Connector
- Scanning Frequencies: (Auto Scanning) Horizontal-31.5 to 65Khz Continuous Vertical-50Hz to 90Hz
- Agency Approvals: UL & CUL Recognized, TUV-GS, FDA, FCC, CE

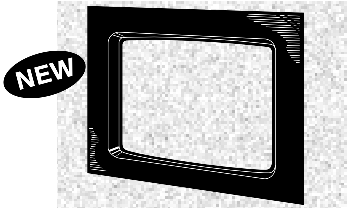




Part Number	Description	Price per ea
49-1331-00	15” SVGA Monitor	CALL

Looking for a touchscreen monitor? Happ Controls could provide you a complete solution. Call for all your ***Monitor*** monitor needs

MONITOR BEZELS



- Decorative black plastic bezel or Dark Gray foam for use with various sized monitors
- Covers the areas outside of the monitor glass to give a clean appearance to any cabinet

Part Number		Price per ea.
49-0105-00	19" Monitor Bezel, Black Plastic	11.25
49-0123-00	25" Monitor Bezel, Black Plastic	14.50
49-0106-00	27" Monitor Bezel, Black Plastic	15.00
49-0741-00	13" Monitor Bezel, Dark Gray Foam	7.95
49-0927-00	19" Monitor Bezel, Dark Gray Foam	8.95
49-3048-00	33” Monitor Bezel, Gray Foam	18.95

Visit Our Web Site:

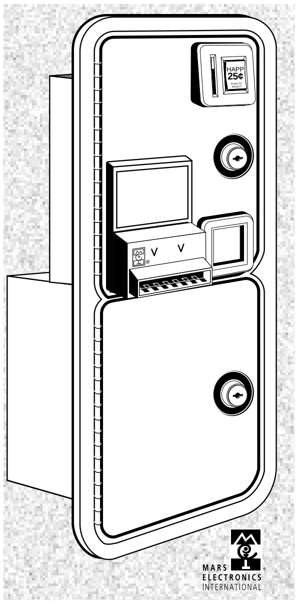
happcontrols.com

for ***NEW***
Product Updates!!

HAPP
VISIT OUR WEBSITE

OVER/UNDER UPSTACKER VALIDATOR DOOR

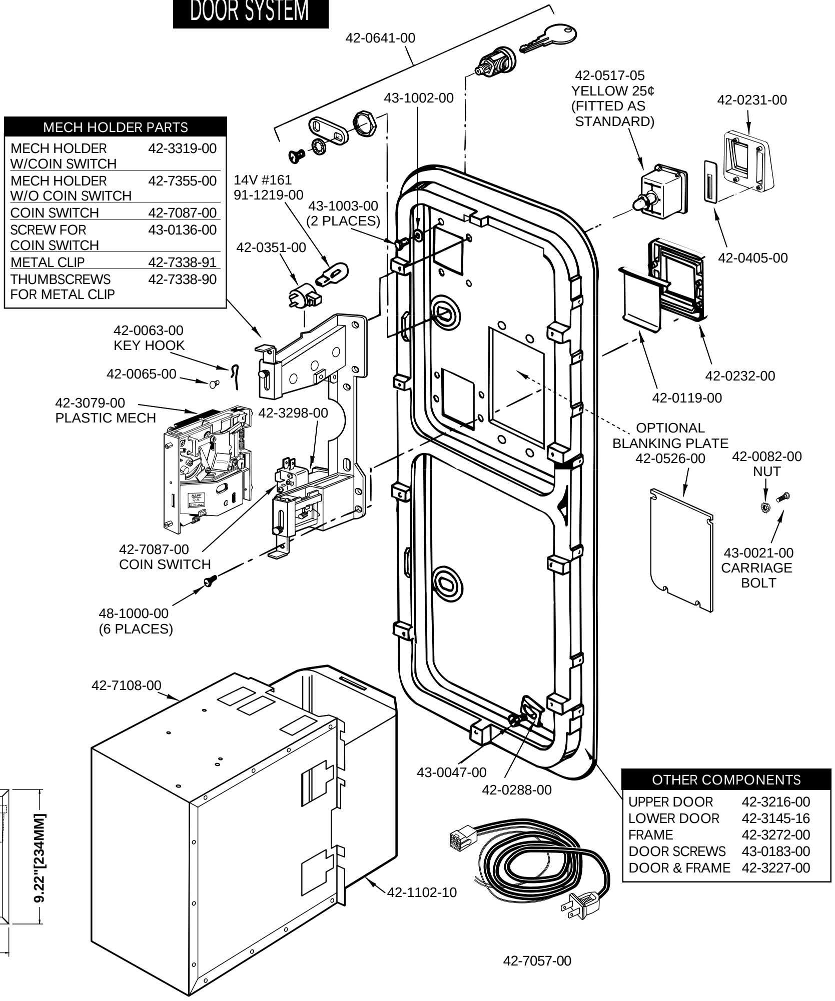
- **New, thicker 16 gauge steel for improved security**
- Industry standard mounting dimensions allows this exclusive Happ Controls design to be used in the most popular games
- Innovative design to accommodate up to a 500 Bill Capacity stacker for Mars AE Validator
- New innovative mech. holder design prevents “stringing” and holds mech. firmly in place for maximum coin acceptance
- Designed to utilize both Mars AE2451U3E & AE2451U5E and Ardac USA3 (88X5033) and DBA5 (88X5118) Bill Validators
- Accepts both bills and coins
- Capacity of over $1000 in coins
- Validator Harness with AC plug included
- Security ribs cast into frame to prevent pry bar entry
- Fitted with $.25 U.S. mech.


HAPP
25¢
MARS ELECTRONICS INTERNATIONAL

Part Number		Price per ea.
40-7000-00	O/U Upstacker Validator Door w/o Validator	99.00
40-7300-00	O/U Upstacker Validator Door with Mars AE2451U3E Accepts $1, $5 bills (300 Bill Capacity Stacker)	469.00
40-7500-00	O/U Upstacker Validator Door with Mars AE2451U5E Accepts $1, $5 bills (500 Bill Capacity Stacker)	489.00
40-8300-00	O/U Upstacker Validator Door with Mars AE2651U3E Accepts $1, $5, $10, $20 bills (300 Bill Capacity Stacker)	565.00
40-8500-00	O/U Upstacker Validator Door with Mars AE2651U5E Accepts $1, $5, $10, $20 bills (500 Bill Capacity Stacker)	585.00
40-7250-00	O/U Upstacker Validator Door with Ardac USA3 (88X5033) Accepts $1, $5 bills (250 Bill Capacity Stacker)	440.00
40-8250-00	O/U Upstacker Validator Door with Ardac DBA5 (88X5118) Accepts $1, $5, $10, $20 bills (250 Bill Capacity Stacker)	650.00

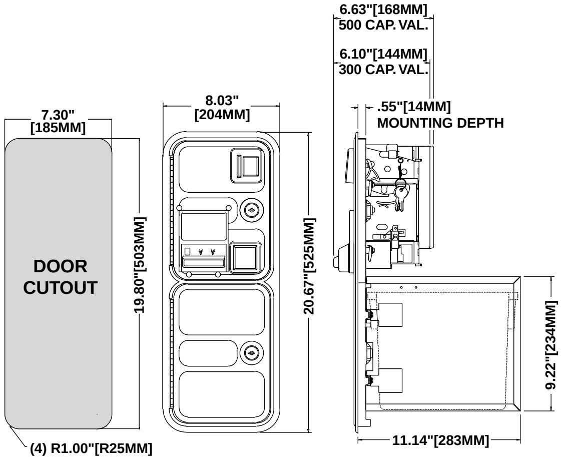
featuring

CONVERTIBLE
COIN / CURRENCY
DOOR SYSTEM


42-0641-00
43-1002-00
42-0517-05
YELLOW 25¢
(FITTED AS STANDARD)
42-0231-00
14V #161
91-1219-00
43-1003-00
(2 PLACES)
42-0351-00
42-0405-00
42-0063-00
KEY HOOK
42-0065-00
42-3079-00
PLASTIC MECH
42-3298-00
42-0232-00
42-0119-00
OPTIONAL BLANKING PLATE
42-0526-00
42-0082-00
NUT
43-0021-00
CARRIAGE BOLT
42-7087-00
COIN SWITCH
48-1000-00
(6 PLACES)
42-7108-00
43-0047-00
42-0288-00
42-1102-10
42-7057-00

MECH HOLDER PARTS	
MECH HOLDER W/COIN SWITCH	42-3319-00
MECH HOLDER W/O COIN SWITCH	42-7355-00
COIN SWITCH	42-7087-00
SCREW FOR COIN SWITCH	43-0136-00
METAL CLIP	42-7338-91
THUMBSCREWS FOR METAL CLIP	42-7338-90

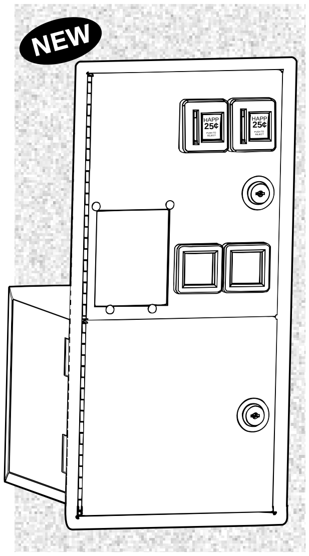
OTHER COMPONENTS	
UPPER DOOR	42-3216-00
LOWER DOOR	42-3145-16
FRAME	42-3272-00
DOOR SCREWS	43-0183-00
DOOR & FRAME	42-3227-00


7.30"
[185MM]
DOOR CUTOUT
19.80"[503MM]
(4) R1.00"[R25MM]
8.03"
[204MM]
20.67"[525MM]
6.63"[168MM]
500 CAP. VAL.
6.10"[144MM]
300 CAP. VAL.
.55"[14MM]
MOUNTING DEPTH
9.22"[234MM]
11.14"[283MM]

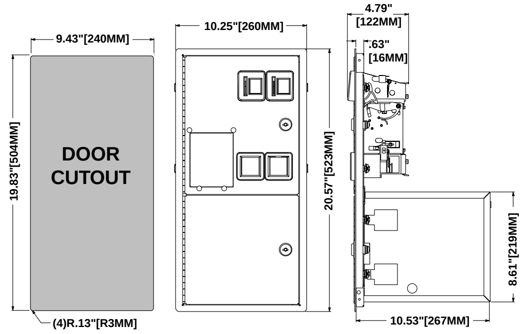
OVER/UNDER UPSTACKER MID-WIDTH VALIDATOR DOOR

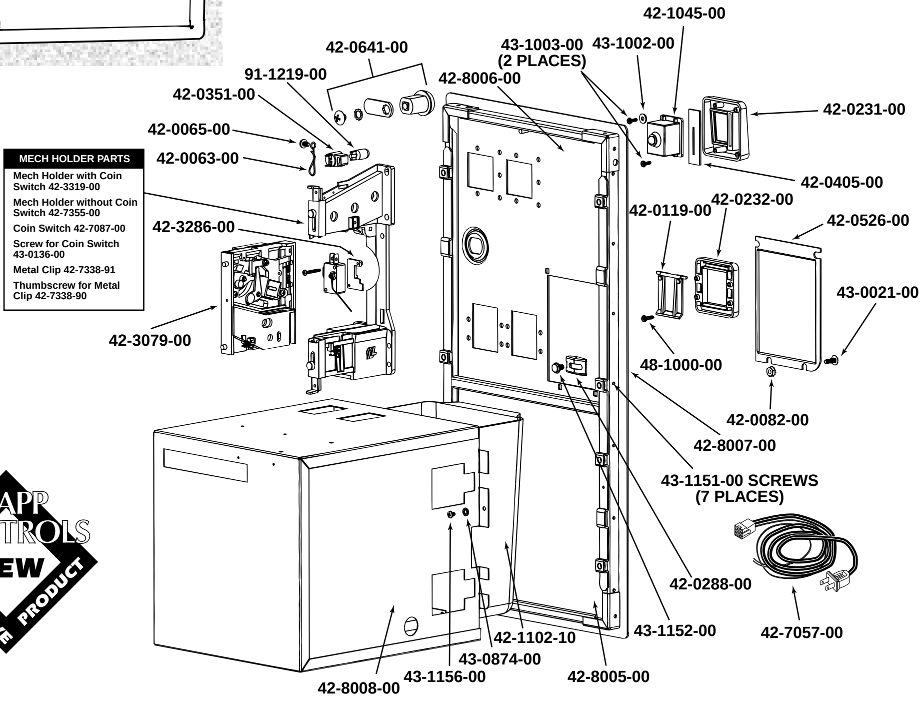
Coming Soon!

- New innovative design allows the use of 2 coin entries plus bill validator acceptance
- This innovative design will allow flexibility for the future when the new $1 coin is released in the year 2000. Allowing the acceptance of money in **three** different ways with a simple coin mech.; change (25¢ coin), $1 coin and dollar bills
- Accepts either Mars Electronics (Series 2000), CashCode or Dixie Narco Upstacking Bill Validators
- Heavy Duty 14 Gauge steel door
- New innovative mech. holder design prevents “stringing” and holds mech. firmly in place for maximum coin acceptance
- Sold with or without bill validator installed
- Exclusive reject button design with unbreakable metal plunger
- Sturdy one-piece steel frame with door clips for installation into cabinet
- Fitted with full metal cashbox enclosure
- Includes meter mounting provision inside of cashbox enclosure
- Cashbox will hold an estimated $1,350 in US Quarters
- Mars & Ardac Validator Harness with AC plug included
- Security ribs in frame prevent pry bar entry
- Mounting hardware included


NEW
HAPP 25¢
HAPP 25¢

MOUNTING DIMENSIONS


9.43"[240MM]
19.83"[504MM]
DOOR CUTOUT
(4)R.13"[R3MM]
10.25"[260MM]
20.57"[523MM]
4.79" [122MM]
.63" [16MM]
8.61"[219MM]
10.53"[267MM]


42-1045-00
42-0641-00
43-1003-00 (2 PLACES)
43-1002-00
91-1219-00
42-8006-00
42-0351-00
42-0231-00
42-0065-00
42-0063-00
42-0405-00
42-0119-00
42-0232-00
42-0526-00
42-3286-00
43-0021-00
42-3079-00
48-1000-00
42-0082-00
42-8007-00
43-1151-00 SCREWS (7 PLACES)
42-0288-00
43-1152-00
42-7057-00
42-1102-10
43-0874-00
42-8008-00
43-1156-00
42-8005-00

MECH HOLDER PARTS

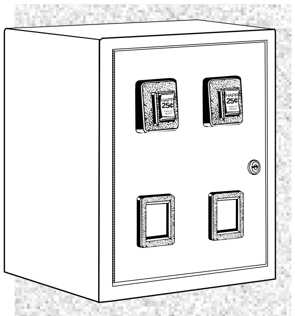
- Mech Holder with Coin Switch 42-3319-00
- Mech Holder without Coin Switch 42-7355-00
- Coin Switch 42-7087-00
- Screw for Coin Switch 43-0136-00
- Metal Clip 42-7338-91
- Thumbscrew for Metal Clip 42-7338-90

Part Number	Door Assembly Description	Accepts	Capacity	Price
Mid-Width Door Without Bill Validator				
40-3000-00	Without Validator Installed	-	-	110.00
With Mars Series 2000 Upstacker Bill Validator				
40-3300-00	With Mars AE2451-U3E Validator	$1 $2 & $5	300 Bills	475.00
40-3500-00	With Mars AE2451-U5E Validator	$1 $2 & $5	500 Bills	495.00
40-3700-00	With Mars AE2451-U7E Validator	$1 $2 & $5	700 Bills	515.00
40-4300-00	With Mars AE2651-U3E Validator	$1, $5, $10 & $20	300 Bills	570.00
40-4500-00	With Mars AE2651-U5E Validator	$1, $5, $10 & $20	500 Bills	590.00
40-4700-00	With Mars AE2651-U7E Validator	$1, $5, $10 & $20	700 Bills	610.00
With CashCode Upstacker Bill Validator				
40-3170-00	With CashCode AMZ 154 Validator	$1 $2 & $5	170 Bills	450.00
40-3400-00	With CashCode AMZ 154 Validator	$1 $2 & $5	400 Bills	460.00
40-3600-00	With CashCode AMZ 154 Validator	$1 $2 & $5	600 Bills	470.00
40-4170-00	With CashCode AMZ PLUS Validator	$1, $5, $10 & $20	170 Bills	565.00
40-4400-00	With CashCode AMZ PLUS Validator	$1, $5, $10 & $20	400 Bills	575.00
40-4600-00	With CashCode AMZ PLUS Validator	$1, $5, $10 & $20	600 Bills	585.00
With Ardac Upstacker Bill Validator				
40-3250-00	With Ardac USA3 (88X5033) Validator	$1 & $5	250 Bills	465.00
40-4250-00	With Ardac DBA5 (88X5118) Validator	$1, $5, $10 & $20	250 Bills	615.00

SIDE MOUNT COIN ACCEPTOR BOX SINGLE & DUAL

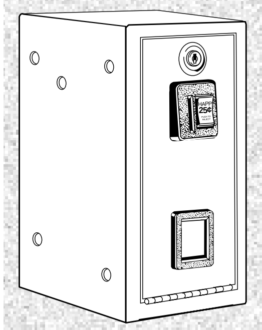
Side Mount Coin Acceptor Box

- Clean and easy bolt on design to add coin acceptance to almost any application
- Coinbox capacity $250 in U.S. quarters
- “Universal” Patented one-piece mech. holder design. Will fit **all** known 3" x 5" mechanical and electronic acceptors on the market. See page 69 for illustration
- Fitted with $.25 U.S. mech. and coin switch as standard
- Includes mounting hardware


Dual

Dual Side Mount Coin Acceptor Box

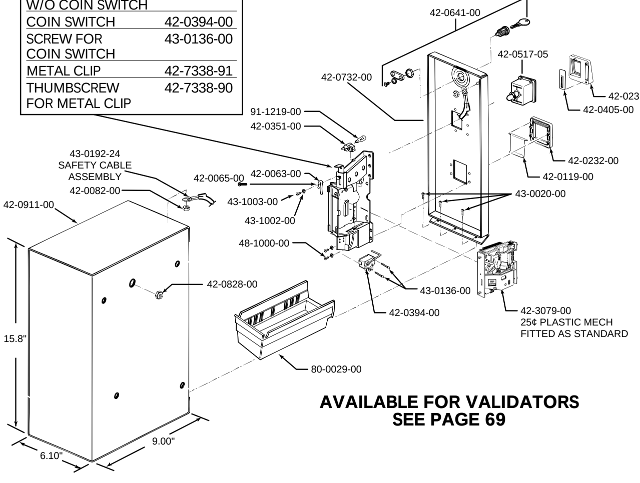
- Clean and easy bolt-on design to add coin acceptance to almost any application
- Coinbox capacity: $750 in U.S. Quarters
- Patented one-piece mech holder design
- Fitted with $.25 U.S. mech and coin switch as standard
- Includes mounting hardware:


Single

(4) 90-1208-00 1/4 Flat Washer
(4) 90-1209-00 1/4-20 Hex Nut
(4) 43-0156-00 1/4-20 x 1/2 Hex Head Cap Screw

MECH HOLDER PARTS	
MECH HOLDER W/COIN SWITCH	42-0455-00
MECH HOLDER W/O COIN SWITCH	42-7338-00
COIN SWITCH	42-0394-00
SCREW FOR COIN SWITCH	43-0136-00
METAL CLIP	42-7338-91
THUMBSCREW FOR METAL CLIP	42-7338-90

SINGLE VERSION PICTURED

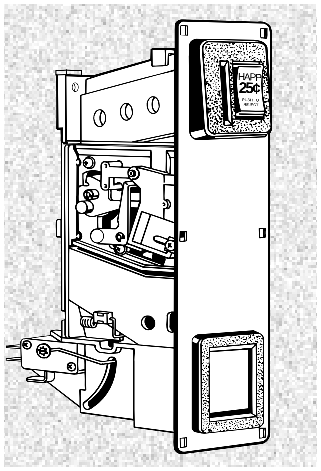

42-0641-00
42-0517-05
42-0732-00
42-0231-00
42-0405-00
91-1219-00
42-0351-00
43-0192-24
SAFETY CABLE
ASSEMBLY
42-0065-00
42-0063-00
42-0082-00
42-0232-00
42-0119-00
42-0911-00
43-1003-00
43-1002-00
43-0020-00
48-1000-00
42-0828-00
43-0136-00
42-0394-00
42-3079-00
25¢ PLASTIC MECH
FITTED AS STANDARD
15.8"
80-0029-00
6.10"
9.00"

AVAILABLE FOR VALIDATORS SEE PAGE 69

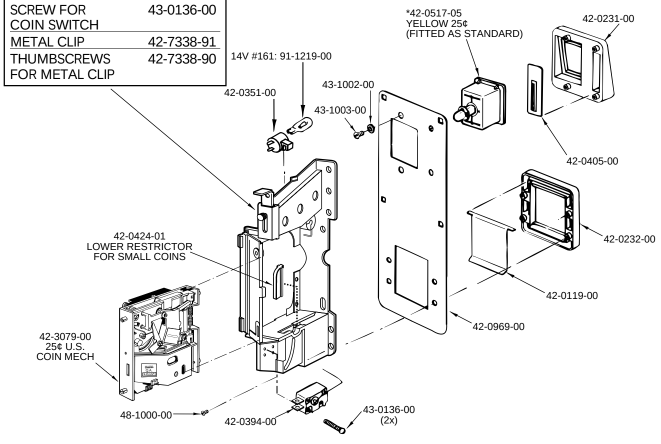
Part Number		Price per ea.
40-0283-01	Single Side Mount Cashbox	136.00
40-0360-00	Dual Side Mount Cashbox	165.00

SINGLE FRONT PLATE ASSEMBLY

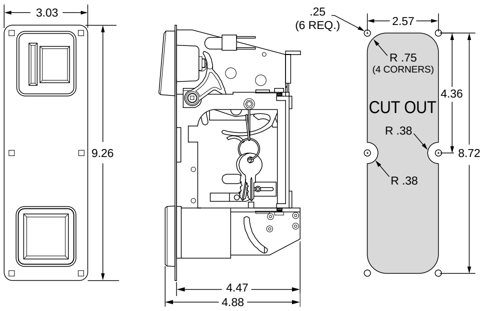
- Industry standard mounting dimensions
- Illuminated coin denomination reject button includes metal plunger
- Available with mechs to accept foreign coins or tokens
- “Universal” Patented one-piece mech. holder design. Will fit **all** known 3" x 5" mechanical and electronic acceptors on the market. See page 69 for illustration
- Available with lockout coil


HAPP
25¢
PUSH TO
REJECT

MECH HOLDER PARTS	
MECH HOLDER W/COIN SWITCH	42-0455-00
MECH HOLDER W/O COIN SWITCH	42-7338-00
COIN SWITCH	42-0394-00
SCREW FOR COIN SWITCH	43-0136-00
METAL CLIP	42-7338-91
THUMBSCREWS FOR METAL CLIP	42-7338-90


*42-0517-05
YELLOW 25¢
(FITTED AS STANDARD)
42-0231-00
14V #161: 91-1219-00
42-0351-00
43-1002-00
43-1003-00
42-0405-00
42-0232-00
42-0424-01
LOWER RESTRICTOR
FOR SMALL COINS
42-0119-00
42-0969-00
42-3079-00
25¢ U.S.
COIN MECH
48-1000-00
42-0394-00
43-0136-00
(2x)

MOUNTING DIMENSIONS


3.03
9.26
4.47
4.88
.25
(6 REQ.)
2.57
R .75
(4 CORNERS)
CUT OUT
4.36
R .38
8.72
R .38

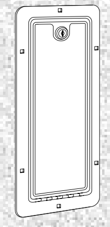
Part Number		Price per ea. 1-5	6+
40-0023-00P	Single Front Plate Assembly	25.50	24.50

Call 888-BUY-HAPP To Order

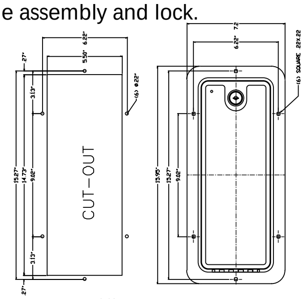
CABINET ACCESS DOORS AND CASH BOXES

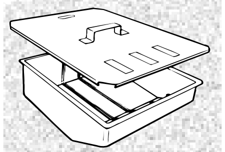
- Allow easy access to cabinet, cash box, etc.
- Sturdy die cast aluminum frame; a Happ Controls exclusive
- Each door includes the frame assembly and lock.

A

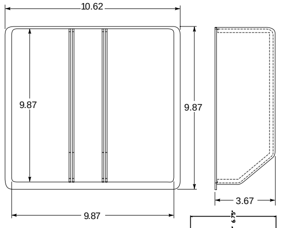


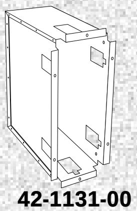
42-7050-00



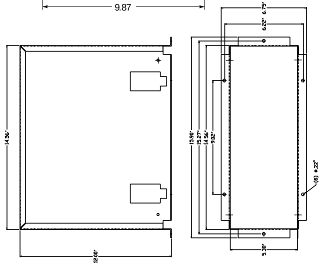


42-0535-00
(Cash Box Only)
42-0536-00
(Cover)

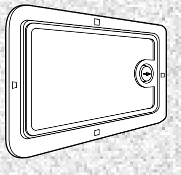

10.62
9.87
9.87
9.87
3.67



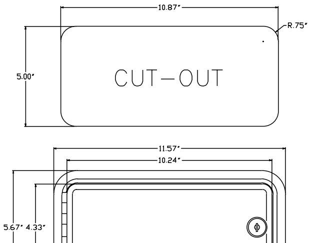
42-1131-00

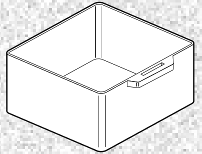


B

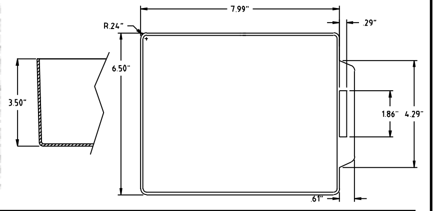


42-1150-00

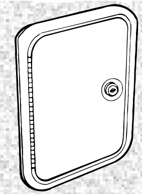

10.87"
R.75"
5.00"
CUT–OUT
11.57"
10.24"
5.67"
4.33"



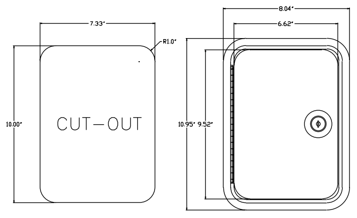
42-3306-00

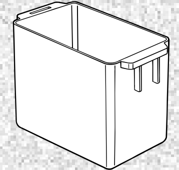

R.24"
7.99"
.29"
6.50"
3.50"
1.86"
4.29"
.61"

C

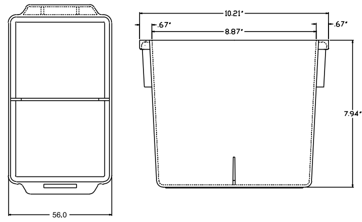


40-0057-00

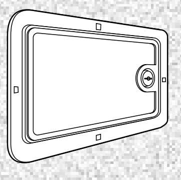

7.33"
R1.0"
10.00"
CUT–OUT
8.04"
6.62"
10.95"
9.52"



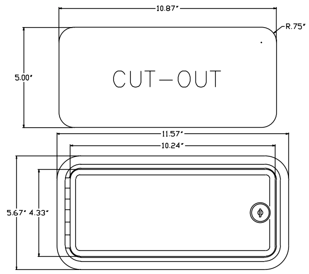
42-1102-10

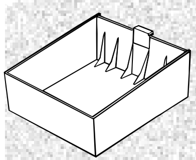

10.21"
.67"
8.87"
.67"
7.94"
56.0

D

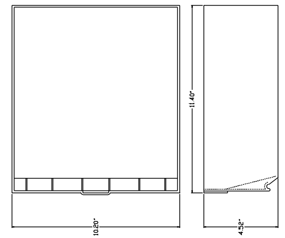


40-0520-00

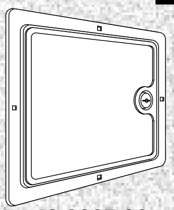

10.87"
R.75"
5.00"
CUT–OUT
11.57"
10.24"
5.67"
4.33"



42-0769-00



E



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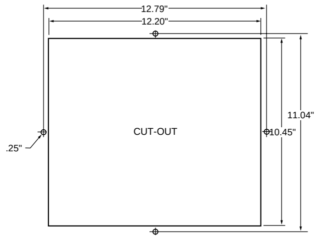
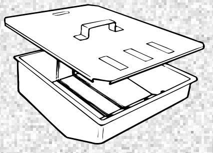
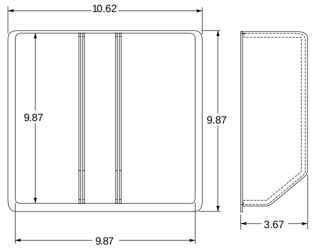
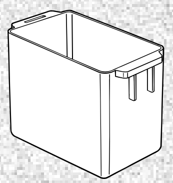

12.79"
12.20"
CUT-OUT
11.04"
10.45"
.25"

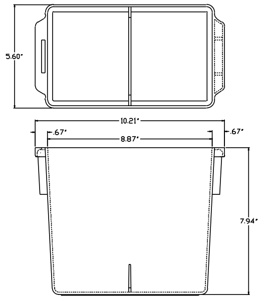


42-0535-00
(Cash Box Only)
42-0536-00
(Cover)


10.62
9.87
9.87
9.87
3.67



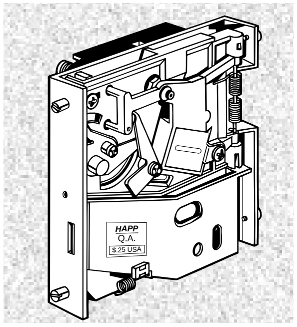
42-1102-10

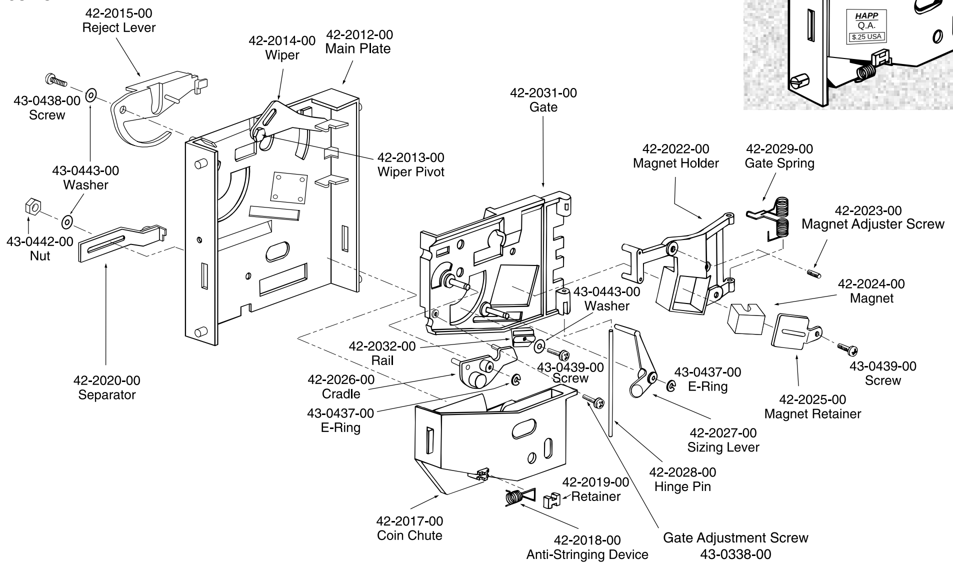

5.60"
10.21"
.67"
8.87"
.67"
7.94"

	Part Number		Price per each
A	42-7050-00	Access Door and Frame Assembly	31.00
	42-0535-00	Plastic Cash Box Only for Door 42-7050-00	7.50
	42-0536-00	Cash Box Cover Only	10.00
	42-1311-00	Metal Validator Vault for Door 42-7050-00	22.85
B	42-1150-00	Mini-Access Door and Frame Assembly	19.00
	42-3306-00	Plastic Cash Box for Door 42-1150-00	2.50
C	40-0057-00	Access Door and Frame Assembly	19.95
	42-1102-10	Plastic Cash Box for Door 42-0438-00	5.50
D	40-0520-00	Access Door and Frame Assembly	35.00
	42-0769-00	Plastic Cash Box for Door 42-1102-10	10.00
E	40-0067-00	Access Door and Frame Assembly	24.50
	42-1102-10	Plastic Cash Box for Door 42-0438-00	5.50
	42-0535-00	Plastic Cash Box Only for Door 42-7050-00	7.50
	42-0536-00	Cash Box Cover Only	10.00

HAPP ULTIMECH COIN MECH

- Exclusive cradle design discerns between good and counterfeit coins
- Each mech equipped with anti-stringing device
- Materials carefully chosen for optimum performance and durability
- Color: Black plastic
- Over 99% acceptance of $.25
- Rejects most known false coins

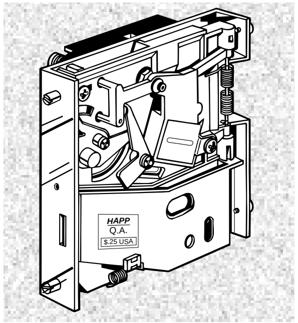

HAPP
Q.A.
$.25 USA

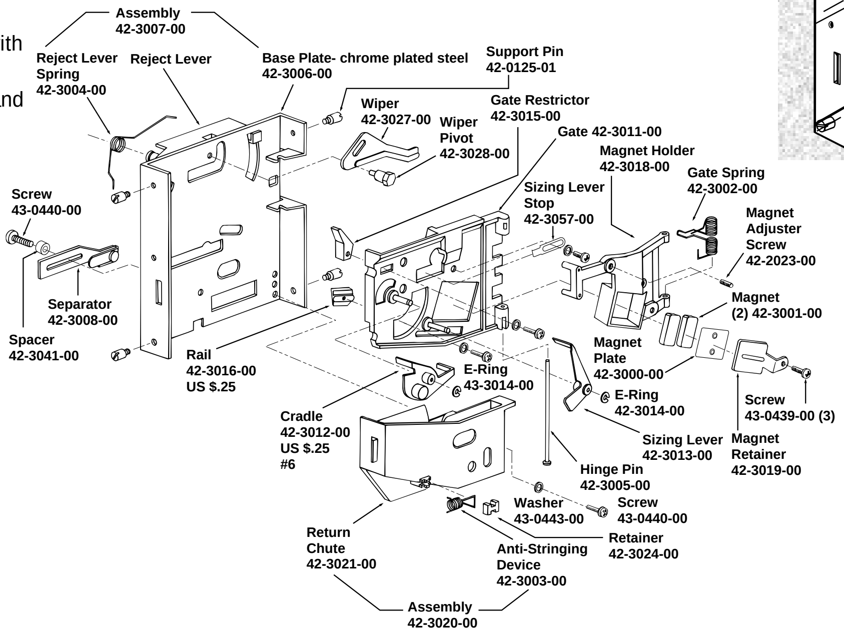

42-2015-00 Reject Lever
42-2014-00 Wiper
42-2012-00 Main Plate
43-0438-00 Screw
42-2031-00 Gate
42-2013-00 Wiper Pivot
43-0443-00 Washer
42-2022-00 Magnet Holder
42-2029-00 Gate Spring
42-2023-00 Magnet Adjuster Screw
43-0442-00 Nut
42-2024-00 Magnet
43-0443-00 Washer
42-2032-00 Rail
42-2026-00 Cradle
43-0439-00 Screw
43-0437-00 E-Ring
43-0439-00 Screw
42-2020-00 Separator
43-0437-00 E-Ring
42-2025-00 Magnet Retainer
42-2027-00 Sizing Lever
42-2019-00 Retainer
42-2028-00 Hinge Pin
42-2017-00 Coin Chute
42-2018-00 Anti-Stringing Device
Gate Adjustment Screw 43-0338-00

Part Number		Price per ea. 1-5	6+
42-3079-00	Happ Ultimech Coin Mech w/Magnet	10.95	9.95

HAPP $.25 USA COIN MECH

- Each part made with great precision to produce a mech that is highly able to separate good coins from counterfeit coins
- Material used for each part carefully chosen to give optimum performance and durability
- High strength rare earth Neodymium magnet used to enhance mechs ability to reject false coins while accepting good coins
- Each mech equipped with anti-stringing device
- Each mech fully tested and inspected

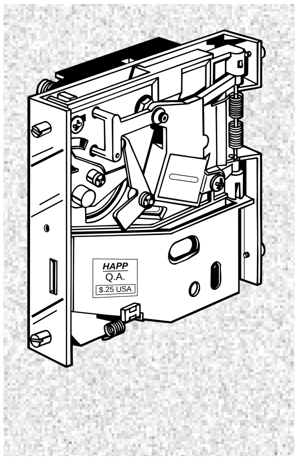

HAPP
Q.A.
$.25 USA


Assembly 42-3007-00
Reject Lever Spring 42-3004-00
Reject Lever
Base Plate- chrome plated steel 42-3006-00
Support Pin 42-0125-01
Wiper 42-3027-00
Wiper Pivot 42-3028-00
Gate Restrictor 42-3015-00
Gate 42-3011-00
Magnet Holder 42-3018-00
Gate Spring 42-3002-00
Sizing Lever Stop 42-3057-00
Magnet Adjuster Screw 42-2023-00
Screw 43-0440-00
Magnet (2) 42-3001-00
Separator 42-3008-00
Spacer 42-3041-00
Rail 42-3016-00 US $.25
E-Ring 43-3014-00
Magnet Plate 42-3000-00
E-Ring 42-3014-00
Screw 43-0439-00 (3)
Cradle 42-3012-00 US $.25 #6
Sizing Lever 42-3013-00
Magnet Retainer 42-3019-00
Hinge Pin 42-3005-00
Washer 43-0443-00
Screw 43-0440-00
Return Chute 42-3021-00
Anti-Stringing Device 42-3003-00
Retainer 42-3024-00
Assembly 42-3020-00

Part Number		Price per ea. 1-5	6+
42-3050-00	Happ $.25 USA Coin Mech	12.95	11.95

HAPP METAL COIN MECH

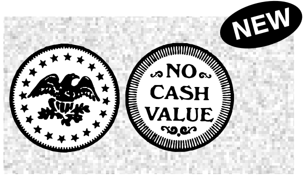
- Each part made with great precision to produce a mech that is highly able to separate good coins from counterfeit coins
- Material used for each part carefully chosen to give optimum performance and durability
- High strength rare earth Neodymium magnet used to enhance mechs ability to reject false coins while accepting good coins
- Each mech equipped with anti-stringing device
- Each mech fully tested and inspected
- Available to suit any coin or token



Part Number		Price per ea. 1-5	6+
42-3039-00	$1.00 Australia Coin Mech	12.95	11.95
42-3050-00	Happ $.25 USA Coin Mech	12.95	11.95
42-3054-00	$.25 Canadian Coin Mech	12.95	11.95
42-3066-00	$1.00 Canadian Coin Mech	12.95	11.95
42-3059-00	50 CTV Mexico Coin Mech	12.95	11.95
42-3065-00	N1.00 Mexico Coin Mech	12.95	11.95
42-3072-00	Aladdin's token Coin Mech	12.95	11.95
42-3061-00	.800" token Coin Mech	12.95	11.95
42-3062-00	.882" token Coin Mech	12.95	11.95
42-3052-00	.900" token Coin Mech	12.95	11.95
42-3053-00	.984" token Coin Mech	12.95	11.95
42-3070-00	$.25 & .984" QST Token Coin Mech	12.95	11.95
42-3063-00	1.00" Token Coin Mech	12.95	11.95
42-3064-00	1.125" Token Coin Mech	12.95	11.95
42-3069-00	100 Yen Japan	12.95	11.95
42-3077-00	1DM German Coin Mech	12.95	11.95
42-3078-00	5DM German Coin Mech	12.95	11.95
42-3067-00	500 Won Korea Coin Mech	12.95	11.95
42-7250-00	$.20 Australia Coin Mech	12.95	11.95
42-7254-00	5 Kroner Norway Coin Mech	12.95	11.95
42-7255-00	10 Kroner Norway Coin Mech	12.95	11.95
42-7258-00	5 Francs France Coin Mech	12.95	11.95
42-7259-00	10 Francs France Coin Mech	12.95	11.95
42-7260-00	1 Franc Switzerland Coin Mech	12.95	11.95
42-7261-00	5 Franc Switzerland Coin Mech	12.95	11.95
42-7264-00	5 Kroner Denmark Coin Mech	12.95	11.95
42-7265-00	10 Kroner Denmark Coin Mech	12.95	11.95

BRASS TOKENS

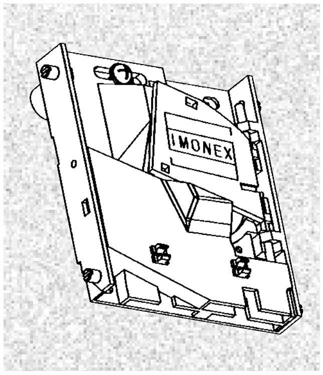
- Use tokens to free up cash
- Reduce theft
- Material: golden brass
- Available in four popular sizes
- Minimum order 100 pieces



Part Number	Size	Price per ea.	500+	1000+
42-0731-00	.882 x .070	.10	.09	.08
42-0700-00	.900 x .070	.10	.09	.08
42-0701-00	.984 x .060	.11	.10	.09
42-0701-01	1.00 x .060	.11	.10	.09

IMONEX® COIN MECH

- Latest technology reduces coin jam related service calls
- Reliable – no moving parts
- Reduces machine down time and service calls
- Cleaning and maintenance free
- Replaces mechanical coin acceptors
- Various versions available



Part Number		Price per ea.	10-19	20+
42-3036-00	Imonex $.05 USA Coin Mech	11.75	11.25	10.00
42-1184-00	Imonex $.25 USA Coin Mech	9.95	9.45	8.95
42-6901-00	Imonex $.25, .882 & .900" Token Mech	11.95	11.35	10.95
42-3135-00	Imonex $.25 & .900" Token Mech	11.95	11.35	10.95
42-2034-00	Imonex $.25 & .984" Token Coin Mech	11.95	11.35	10.95
42-3186-00	Imonex .800" Token Mech	11.95	11.35	10.95
42-1184-01	Imonex .882" Token Coin Mech	11.95	11.35	10.95
42-1184-02	Imonex .900" Token Coin Mech	11.95	11.35	10.95
42-1184-03	Imonex .984" Token Coin Mech	11.95	11.35	10.95
42-7012-00	Imonex .984 & 1" Token Mech	11.95	11.35	10.95
42-3087-00	Imonex 1" Token Coin Mech	11.95	11.35	10.95
120-900-11	Imonex 1.125" Token Mech	11.95	11.35	10.95

REAR ENTRY MECH HOLDER SYSTEM

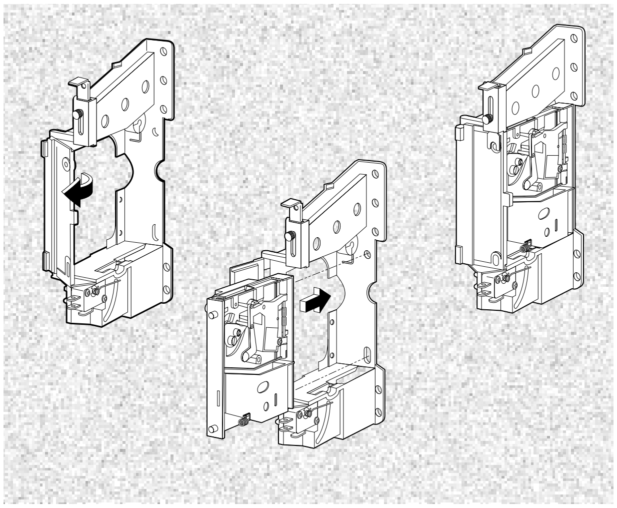
All Happ Coin Doors feature our exclusive mech holder design:

- "Universal" Patented one-piece mech holder, fits ***all*** known 3" x 5" mechanical and electronic acceptors on the market.
- No removable locking bar to get lost
- Durable nylon plastic

Loosen thumbscrew and lift metal clip and open rear mech holder door

Insert/Remove coin mechanism as shown

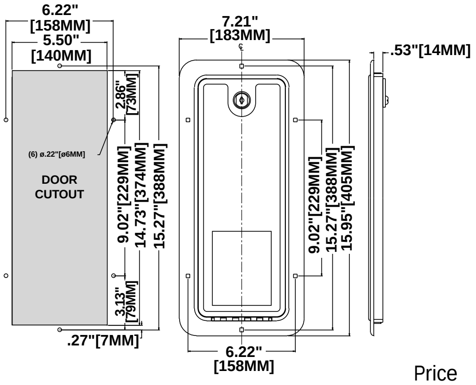
Close rear mech holder door, slide metal clip and tighten thumbscrew



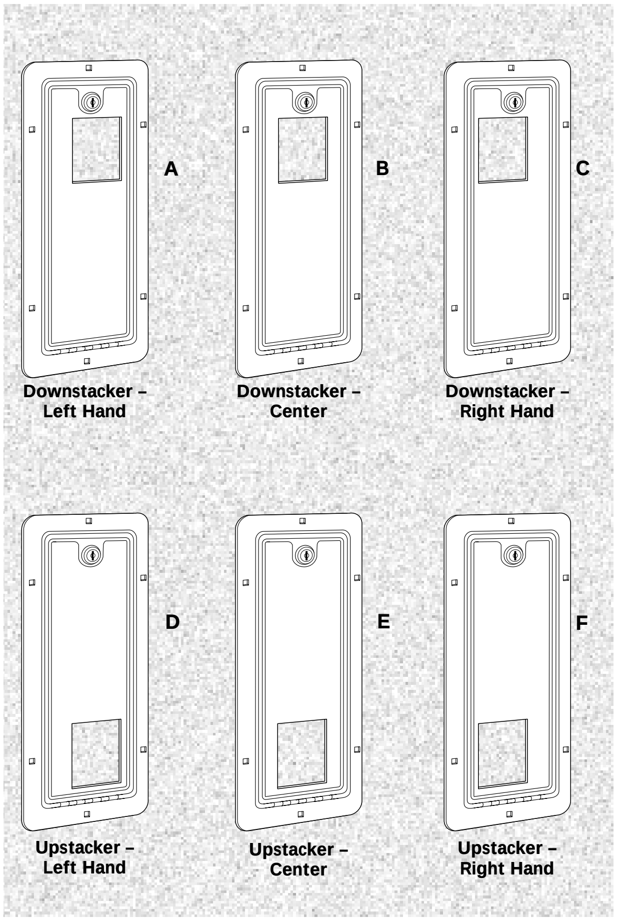
DOORS FOR BILL VALIDATORS

- Great way to increase the earnings on any piece of equipment
- Ideal for use where space is limited
- Mars (GL, VFM, AL) and Rowe require either “Right” or “Left” Hand versions, depending on which side the control box is mounted (600 Bill Capacity Stacker Max.)
- CashCode, Ardac and Mars (AE & VN) require “Center” version
- For additional security, simply add Metal Vault (42-1311-00) to these doors
- Validators sold separately

MOUNTING DIMENSIONS
ALL TICKET DISPENSER STYLE DOORS

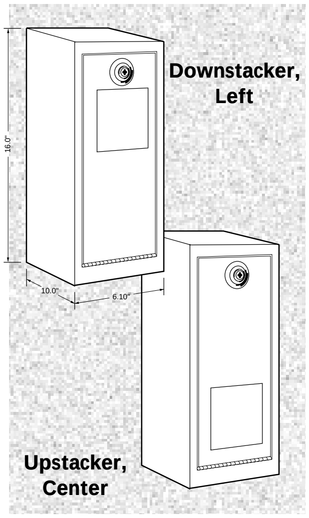

6.22" [158MM]
5.50" [140MM]
2.86" [73MM]
(6) ø.22"[ø6MM]
DOOR CUTOUT
9.02"[229MM]
14.73"[374MM]
15.27"[388MM]
3.13" [79MM]
.27"[7MM]
7.21" [183MM]
.53"[14MM]
9.02"[229MM]
15.27"[388MM]
15.95"[405MM]
6.22" [158MM]

Part Number	Key	Validator Door	Price per ea.	10+
42-1395-00	A	Downstacker, Left Hand	35.00	33.00
42-1394-00	B	Downstacker, Center	35.00	33.00
42-1393-00	C	Downstacker, Right Hand	35.00	33.00
42-1392-00	D	Upstacker, Left Hand	35.00	33.00
42-1391-00	E	Upstacker, Center	35.00	33.00
42-1390-00	F	Upstacker, Right Hand	35.00	33.00


A
B
C
Downstacker – Left Hand
Downstacker – Center
Downstacker – Right Hand
D
E
F
Upstacker – Left Hand
Upstacker – Center
Upstacker – Right Hand

ENCLOSURE FOR BILL VALIDATORS

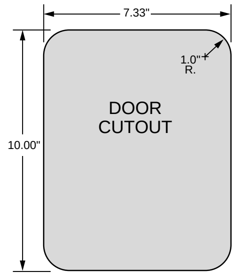
- Allows bill validator to be added to any piece of equipment
- Will accept all Mars stackerless and downstacker validators including GL5 downstacker with 600 capacity LRC (lockable removable cassette)
- Can be mounted to the left or right side of any piece of equipment
- Black epoxy powder painted

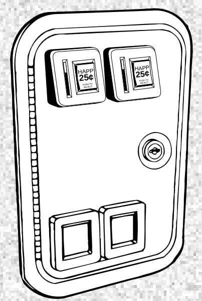

Downstacker, Left
16.0"
10.0"
6.10"
Upstacker, Center

Part Number		Price per ea.	12+
40-0157-00	Enclosure for Bill Validators, Downstacker Versions, Left	75.00	70.00
40-0157-01	Enclosure for Bill Validators, Upstacker Versions, Right	75.00	70.00
40-0448-01	Enclosure for Bill Validators for Downstacker CashCode and Mars AE & VN Validators, Center	75.00	70.00
40-0448-00	Enclosure for Bill Validators for Upstacker CashCode and Mars AE & VN Validators, Center	75.00	70.00

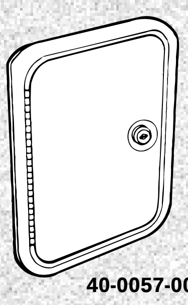
SMALL SINGLE COIN DOORS

- Sturdy one piece die cast metal frame
- “Universal” Patented one-piece mech. holder design. Will fit **all** known 3" x 5" mechanical and electronic acceptors on the market. See page 69 for illustration
- Heavy duty 16 gauge drawn steel door
- Industry standard mounting dimensions
- Mounting hardware included
- Foreign and token coin mechs available
- Fitted with 25¢ mech and 14V bulbs as standard


7.33"
1.0" R.
DOOR CUTOUT
10.00"



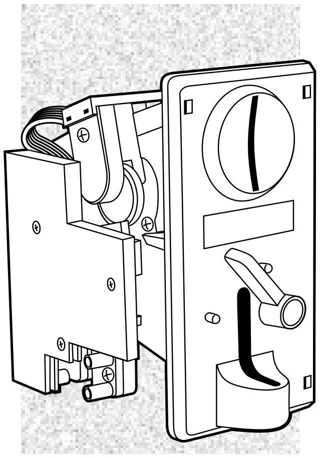
40-0055-00



40-0057-00

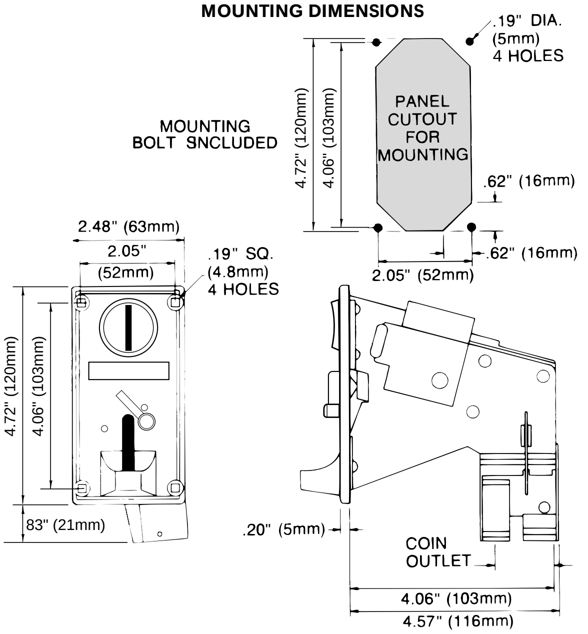
Part Number		Price per ea. 1-9	10+
40-0055-00	Small Single Door - 2 Entry	53.00	51.00
40-0057-00	Small Blank Door	19.95	17.95

ELECTRONIC ROLL DOWN ACCEPTOR



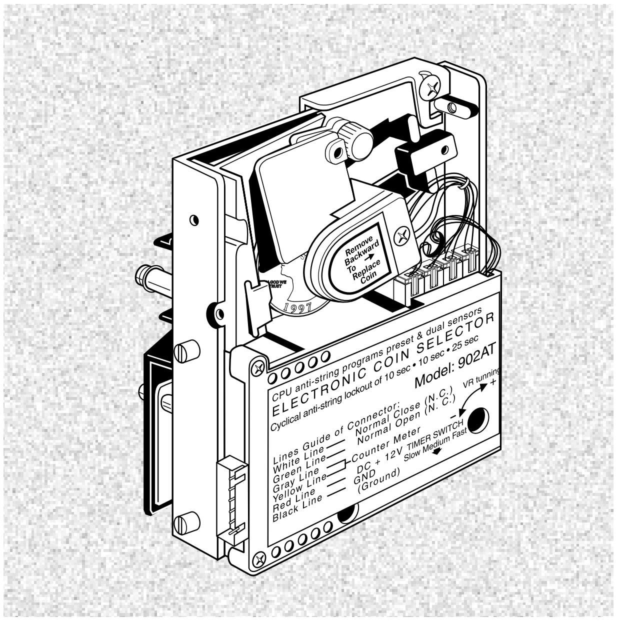
- To change the coin you wish to accept, simply lift up the retaining bracket and insert new sample coin and the mech. will accept only that coin
- Accepts coins based on the coins diameter size, thickness and material content
- Capable of accepting a wide variety of coins and tokens:
  Coin Dia. Size: 18 mm to 31 mm (.708" to 1.22")
  Coin Thickness: 1.2 mm to 3.0 mm (.0472" to .1181")
- 3-way adjustable timing switch for coin output 22 ms/ 45 ms/65 ms
- Adjustable sensitivity to eliminate acceptance of high quality slugs
- Easy installation
- Requires +12vdc

MOUNTING DIMENSIONS


.19" DIA. (5mm) 4 HOLES
MOUNTING BOLT SNCLUDED
4.72" (120mm)
4.06" (103mm)
PANEL CUTOUT FOR MOUNTING
.62" (16mm)
.62" (16mm)
2.05" (52mm)
2.48" (63mm)
2.05" (52mm)
.19" SQ. (4.8mm) 4 HOLES
4.72" (120mm)
4.06" (103mm)
83" (21mm)
.20" (5mm)
COIN OUTLET
4.06" (103mm)
4.57" (116mm)

Part Number		Price per ea. 1-5	6+
40-1500-00	Electronic Roll Down Acceptor	45.00	44.25

ELECTRONIC SINGLE COIN ACCEPTOR


Remove Backward To Replace Coin
CPU anti-string programs preset & dual sensors
ELECTRONIC COIN SELECTOR
Cyclical anti-string lockout of 10 sec • 10 sec • 25 sec
Model: 902AT
VR tunning
Lines Guide of Connector:
White Line — Normal Close (N.C.)
Green Line — Normal Open (N.C.)
Gray Line — Counter Meter
Yellow Line — DC + 12V
Red Line — GND (Ground)
Black Line
TIMER SWITCH Slow Medium Fast

- To change the coin you wish to accept, simply lift up the retaining bracket and insert new sample coin and the mech. will accept only that coin
- Accepts coins based on the coins diameter size, thickness, and material content
- Dual sensors to virtually eliminate the problem of stringing
- Output line to allow simple connection of counting meter to coin mech
- Capable of accepting a wide variety of coins and tokens
- Coin Dia. Size: 10mm to 31 mm (.708” to 1.22”)
- Coin Thickness: 1.2mm to 3.0mm (.0472” to .1181”)
- 3-way adjustable timing switch for coin output 22ms / 45ms / 65ms
- Adjustable sensitivity to eliminate acceptance of high quality slugs
- Easy installation into any standard 3” x 5” coin mech. application
- Requires +12vdc

Part Number		Price per each	6+
40-1600-00	Electronic Single Coin Acceptor	49.95	48.95

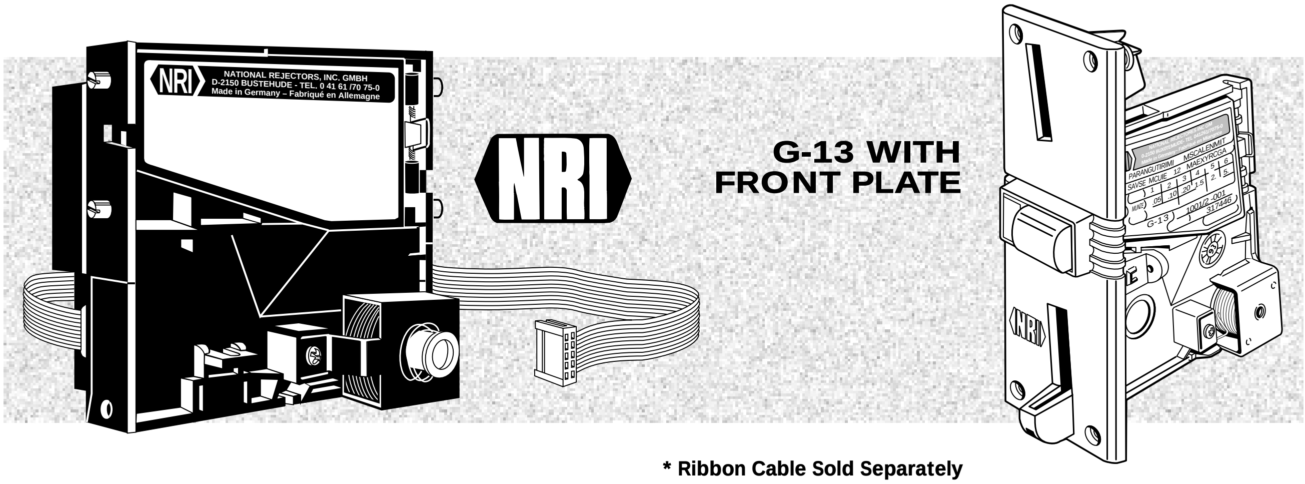
Visit our web site:

happcontrols.com

for ***NEW*** Product Updates!!

NRI ELECTRONIC COIN VALIDATOR SYSTEM G-13.6000

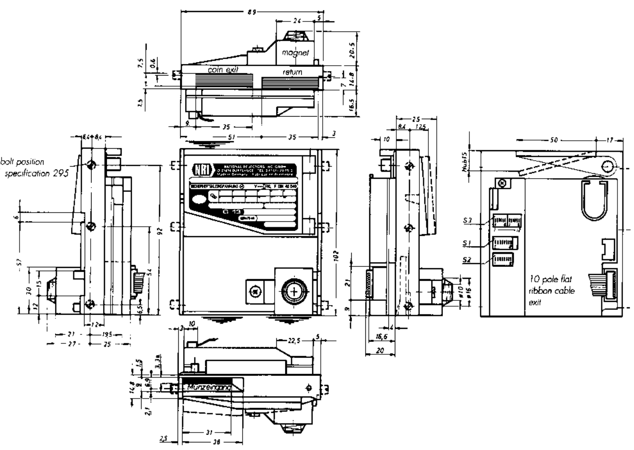
- 12 different coins/tokens may be accepted
- Very fast coin/token acceptance; 6 coins per second – (Casino model G-13-6100)
- CMOS micro processor and SMT provide outstanding reliability and improved coin/token measuring system– 16 measurement parameters are used; coins/tokens are measured primarily by diameter, thickness, alloy content and even embossing features.
- Anti-stringing provisions are electronic via a directional accept sensor and a mechanical one way gate
- Totalizer, timer, and serial output models are available
- Reprogrammable by means of simple teaching by inserting new coin set with the aid of programming station
- 90 day warranty from Happ Controls
- Operating voltage – 10V to 16V DC
- Current – 20 ma
- Size – World standard 3.5 x 4 fits all Happ Controls coin doors and front plates


NRI
NATIONAL REJECTORS, INC. GMBH
D-2150 BUSTEHUDE - TEL. 0 41 61 /70 75-0
Made in Germany – Fabriqué en Allemagne
NRI
G-13

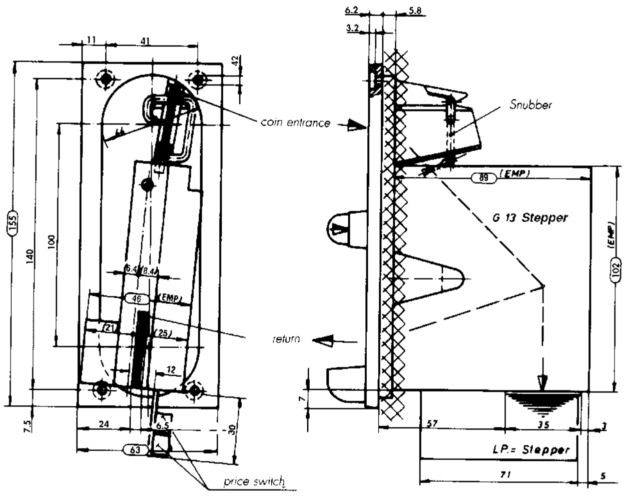
G-13 WITH FRONT PLATE

*** Ribbon Cable Sold Separately**

MOUNTING DIMENSIONS


magnet
coin exit
return
A-bolt position of specification 295
S3
S1
S2
10 pole flat ribbon cable exit
Münzeingang

MOUNTING DIMENSIONS

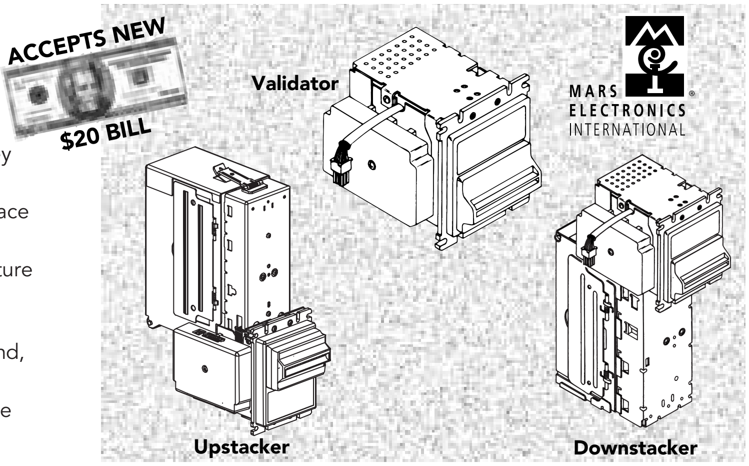

coin entrance
Snubber
(EMP)
G 13 Stepper
return
price switch
LP.= Stepper

Part Number		Price per ea. 1-5	6+
Call for Part #	NRI G-13 Electronic Coin Validator* (Specify coins to accept)	125.00	120.00
42-0869-00	Ribbon Cable	7.75	6.95

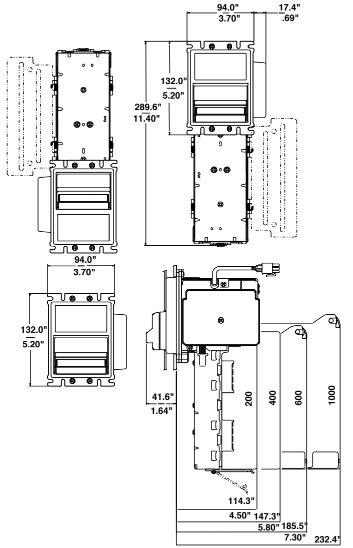
Part Number		Price per ea. 1-5	6+
Call for Part #	NRI G-13 Front Plate Electronic Coin Validator*	145.00	140.00

MARS BILL VALIDATORS-AL SERIES

- Provides high levels of acceptance of genuine bills and rejection of frauds across all denominations
- Maximize revenue; ensure the integrity of your operation through state-of-the-art design and componentry
- Multiple, multi-function optical sensors perform a greater number of authenticity tests on submitted bills before they can be accepted
- Overall broad-area sensing takes in more of the bill's surface to help determine acceptability
- Socketed software chip provides flexibility and ease of future software upgrades to improve performance and enhance security protection if required
- Fast bill transport speed, approximately 10 inches per second, makes bill insertion quick and convenient for the customer
- Disable capability provides flexibility to restrict acceptance of selected denominations as desired
- Configuration flexibility enables operator to specify upstacker, downstacker, or stackerless setup, left or right control, magazine size, voltage etc.
- Stacked bill correction keeps bills already in magazine from shifting, which can block incoming bills. Enables magazine to fill to capacity
- Illuminated bill validator throat attracts attention and facilitates ease of use
- 1 Year Warranty
- Optional coin resistant bezel available (42-3221-00)

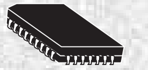

ACCEPTS NEW
$20 BILL
Validator
MARS ELECTRONICS INTERNATIONAL
Upstacker
Downstacker

Validator Dimensions


94.0"
3.70"
17.4"
.69"
132.0"
5.20"
289.6"
11.40"
94.0"
3.70"
132.0"
5.20"
41.6"
1.64"
200
400
600
1000
114.3"
4.50"
147.3"
5.80"
185.5"
7.30"
232.4"
9.15"

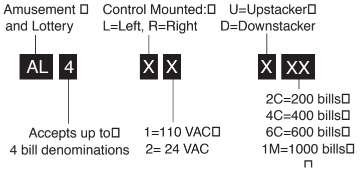
AL4 EPROM UPDATE FOR NEW $20.00

NEW



Part Number		Price per ea.	L/50	L/100
42-7280-00	Eprom for AL4 Standard	19.99	17.50	14.99
42-7280-01	Eprom for AL4 Danyl	19.99	17.50	14.99
42-7280-02	Eprom for AL4 RS232 5V	19.99	17.50	14.99
42-7280-03	Eprom for AL4 RS232	19.99	17.50	14.99

Configuration Key


Amusement and Lottery
Control Mounted: L=Left, R=Right
U=Upstacker D=Downstacker
AL
4
X
X
X
XX
Accepts up to 4 bill denominations
1=110 VAC
2= 24 VAC
2C=200 bills
4C=400 bills
6C=600 bills
1M=1000 bills

Example:

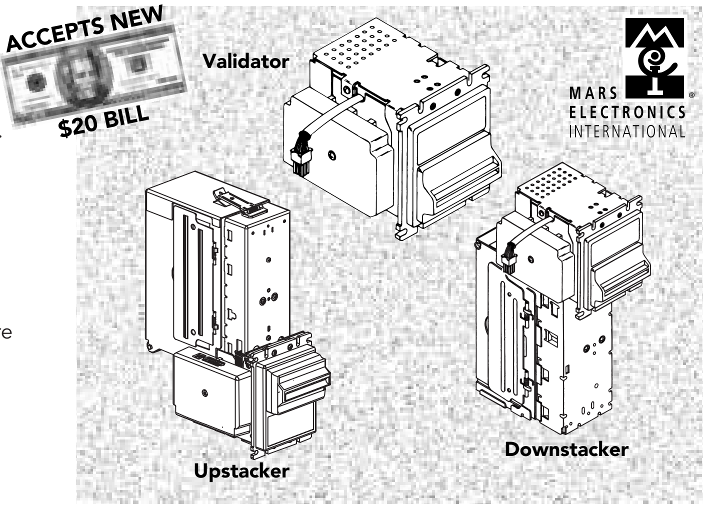
AL4-L1:
Left mount control, 110 VAC, Stackerless

AL4-L1-D6C:
Left mount control, 110 VAC, Downstacker 600 bill capacity

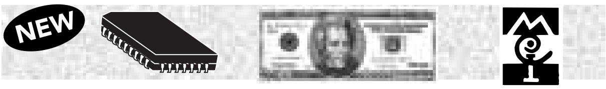
Part Number	Model	To Accept	Bill Capacity	Voltage	Price per ea.
42-2058-00	AL4-L1	$1, $5, $10 & $20	Stackerless	110VAC	347.00
42-0159-00	AL4-R1	$1, $5, $10 & $20	Stackerless	110VAC	347.00
42-0533-00	AL2-L1-D4C	$1, 2 & $5	400 Bills	110VAC	360.00
42-2059-00	AL4-L1-U2C	$1, $5, $10 & $20	200 Bills	110VAC	380.00
42-2060-00	AL4-L1-D2C	$1, $5, $10 & $20	200 Bills	110VAC	380.00
42-0203-00	AL4-L1-U4C	$1, $5, $10 & $20	400 Bills	110VAC	393.00
42-0505-00	AL4-R1-U4C	$1, $5, $10 & $20	400 Bills	110VAC	393.00
42-2057-00	AL4-L2-U4C	$1, $5, $10 & $20	400 Bills	24VAC	393.00
42-2005-00	AL4-L1-D4C	$1, $5, $10 & $20	400 Bills	110VAC	393.00
42-0221-00	AL4-L1-U6C	$1, $5, $10 & $20	600 Bills	110VAC	407.00
42-2035-00	AL4-L1-D6C	$1, $5, $10 & $20	600 Bills	110VAC	407.00
42-2061-00	AL4-L1-U1M	$1, $5, $10 & $20	1,000 Bills	110VAC	420.00
42-1336-00	AL4-L1-D1M	$1, $5, $10 & $20	1,000 Bills	110VAC	420.00

MARS BILL VALIDATORS-GL SERIES

- Offers a solution for those applications which require the highest integrity of payment systems for legal gaming and lottery applications
- GL5 design delivers exceptional acceptance of genuine bills and superior rejection of cheats and frauds across all denominations, to maximize revenue and guard against fraud.
- Multiple sensor technologies deliver state-of-the-art acceptance and safeguard against specific types of cheats
- Overall broad-area sensing maintains high acceptance accuracy and security to maximize your revenue and your confidence level
- Cross channel sensors look past the end of the bill for tampering devices, and rejects the bill if any are detected
- Socketed software chip provides flexibility and ease of future software upgrades to improve performance and enhance security protection if required
- Fast bill transport speed, approximately 10 inches per second, makes bill insertion quick and convenient for the customer
- Disable capability provides flexibility to restrict acceptance of selected denominations as desired
- Illuminated bill validator throat attracts attention and facilitates ease of use
- 110 VAC, RS232 Available
- 1 Year Warranty

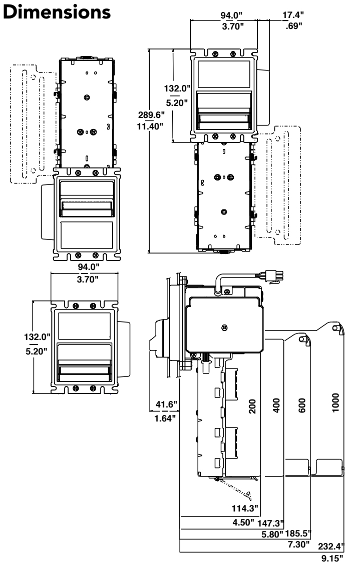

ACCEPTS NEW
$20 BILL
Validator
MARS ELECTRONICS INTERNATIONAL
Upstacker
Downstacker

GL5 EPROM UPDATE FOR NEW $20.00

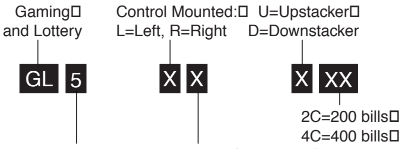


Part Number		Price per ea.	L/50	L/100
42-7281-00	EPROM GL5 Standard	19.99	17.50	14.99
42-7281-01	EPROM GL5 LRC	19.99	17.50	14.99
42-7281-02	EPROM GL5 Danyl	19.99	17.50	14.99
42-7281-03	EPROM GL5 RS232	19.99	17.50	14.99

Validator Dimensions


94.0"
3.70"
17.4"
.69"
132.0"
5.20"
289.6"
11.40"
94.0"
3.70"
132.0"
5.20"
41.6"
1.64"
200
400
600
1000
114.3"
4.50"
147.3"
5.80"
185.5"
7.30"
232.4"
9.15"

Configuration Key


Gaming and Lottery
Control Mounted: L=Left, R=Right
U=Upstacker D=Downstacker
GL
5
X
X
X
XX
Accepts up to 5 bill denominations
1=110 VAC 2= 24 VAC
2C=200 bills
4C=400 bills
6C=600 bills
1M=1000 bills

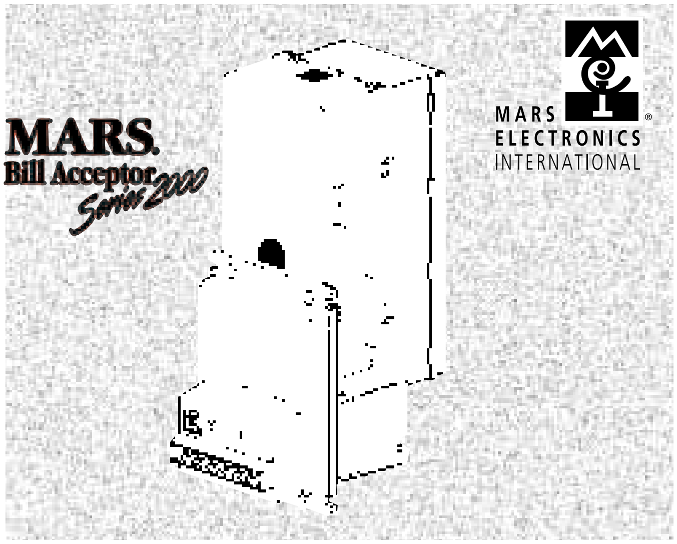
Example:

GL5-L1: Left mount control, 110 VAC, Stackerless
GL5-L1-D6C: Left mount control, 110 VAC, Downstacker 600 bill capacity

Part Number	Model	To Accept	Bill Capacity	Price per ea.
42-2062-00	GL5-L1	$1, $2, $5, $10 & $20	Stackerless	387.00
42-1275-00	GL5-R1	$1, $2, $5, $10 & $20	Stackerless	387.00
42-2079-00	GL4C-R1	$5, $10 & $20 Canada	Stackerless	473.00
42-2076-00	GL5-L1-U2C	$1, $2, $5, $10 & $20	200 Bills	500.00
42-2063-00	GL5-L1-D2C	$1, $2, $5, $10 & $20	200 Bills	500.00
42-2064-00	GL5-L1-U4C	$1, $2, $5, $10 & $20	400 Bills	513.00
42-2065-00	GL5-L1-D4C	$1, $2, $5, $10 & $20	400 Bills	513.00
42-2066-00	GL5-L1-U6C	$1, $2, $5, $10 & $20	600 Bills	525.00
42-2067-00	GL5-L1-D6C	$1, $2, $5, $10 & $20	600 Bills	525.00
42-1097-00	GL5-L1-D6C-R	$1, $2, $5, $10 & $20 (RS232)	600 Bills	675.00
42-2080-00	GL4C-L1-6C	$5, $10 & $20 Canada	600 Bills	587.00
42-1129-00	GL4C-R1-6C	$5, $10 & $20 Canada	600 Bills	587.00
42-2082-00	GL4C-L1-1M	$5, $10 & $20 Canada	1,000 Bills	600.00
42-2083-00	GL4C-R1-1M	$5, $10 & $20 Canada	1,000 Bills	600.00
42-2068-00	GL5-L1-U1M	$1, $5, $10 & $20	1,000 Bills	540.00
42-2069-00	GL5-L1-D1M	$1, $5, $10 & $20	1,000 Bills	540.00
42-2070-00	GL5-R1-U1M	$1, $5, $10 & $20	1,000 Bills	540.00
42-2071-00	GL5-R1-D1M	$1, $5, $10 & $20	1,000 Bills	540.00
42-2072-00	GL5-LRC-L1U	$1, $5, $10 & $20	SOLD SEP.	527.00
42-2073-00	GL5-LRC-L1D	$1, $5, $10 & $20	SOLD SEP.	527.00
42-2074-00	GL5-LRC-R1U	$1, $5, $10 & $20	SOLD SEP.	527.00
42-2075-00	GL5-LRC-R1D	$1, $5, $10 & $20	SOLD SEP.	527.00
42-2077-00	LRC6 Stacker for GL5 LRC Model		600 Bills	164.00
42-2078-00	LRC12 Stacker for GL5 LRC Model		1,200 Bills	253.00

MARS BILL VALIDATORS-AE2400 SERIES

- Advanced sensing technology allows high acceptance rate by accepting torn, wrinkled, faded, damp, dirty, limp, folded or mutilated bills
- Non-contact optical sensors eliminate pinch rollers offering a smooth bill path that reduces jams
- Low Maintenance: Streamlined recognition system sensors are embedded under the smooth plastic bill path and the magnetic pinch roller has been eliminated dramatically reducing debris buildup and the need for cleaning
- Security: Fully-encased optical sensors check paper type and the printing on both sides of the bill, while optical cross channel sensors examine the bill path for foreign objects such as clear tape or strings. This bill validator rejects most of the known counterfeits accepted by ordinary bill acceptors - through the use of multiple wavelength optical sensing and sophisticated data processing
- Fully accessible bill path
- Lighted bezel with easy-to-read diagnostic lamps
- Easy-to-use dip switch settings and coupon configuration
- Holds rejected bills
- Self-generated jam-clearing function
- Fully contained control box
- Expandable upstacker magazine
- Lightweight unitized design for applications where cube space is a premium
- Locking hasp available
- Accepts bills in any direction
- 2 Year Warranty
- New model available for Brazilian currency $1 & $5 Reals (42-7348-00)


MARS.
Bill Acceptor
Series 2000
MARS
ELECTRONICS
INTERNATIONAL

Configuration Key

Amusement and Entertainment Bezel:
1 = Compact
5 = Compact Fitted

Magazine Size:
2= 200 bills
3= 300 bills
5= 500 bills
7= 700 bills

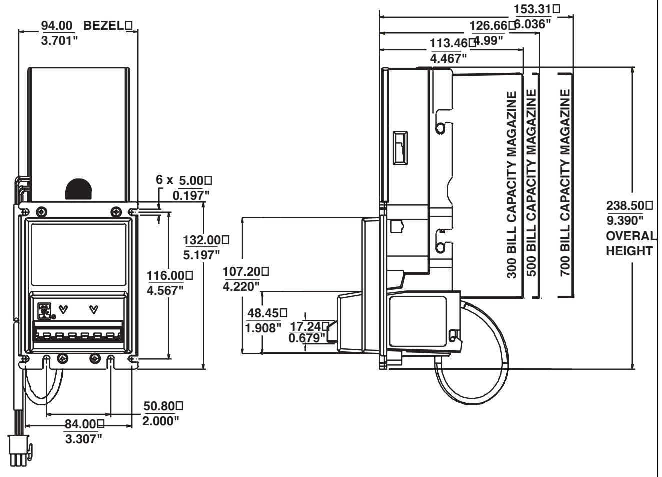
Bezel Options:

AE 24 X X U X X 1 5

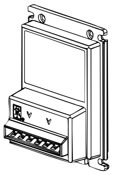
Voltage:
1=110 VAC
2= 24 VAC/MDB

Custom Configuration:
E= Includes harness for Single Price Coin Mech, w/bill escrow
M= Includes MDB harness

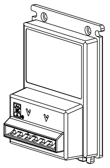
Validator Dimensions AE 2400 Upstacker with compact bezel


94.00 BEZEL□
3.701"
6 x 5.00□
0.197"
132.00□
5.197"
116.00□
4.567"
50.80□
2.000"
84.00□
3.307"
153.31□
6.036"
126.66□
4.99"
113.46□
4.467"
107.20□
4.220"
48.45□
1.908"
17.24□
0.679"
300 BILL CAPACITY MAGAZINE
500 BILL CAPACITY MAGAZINE
700 BILL CAPACITY MAGAZINE
238.50□
9.390"
OVERAL
HEIGHT

Bezel Options:



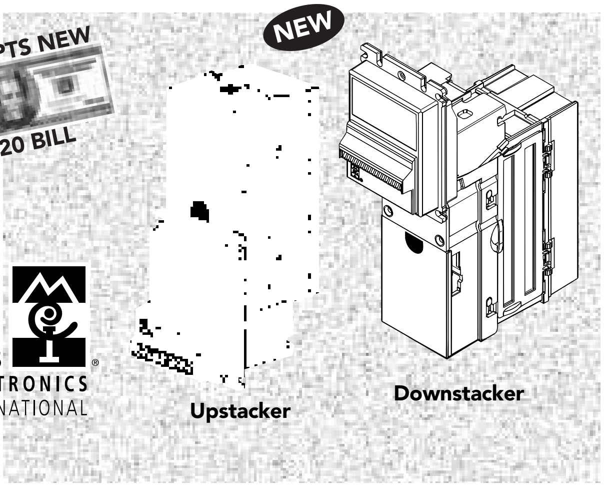
1– Compact Bezel



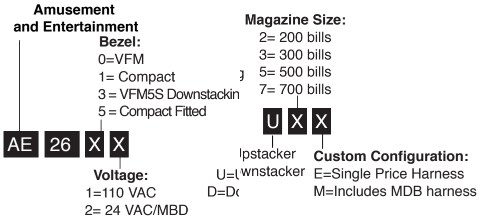
5– Compact Fitted Bezel

Part Number	Model	To Accept	Bill Capacity	Voltage	Price per ea.
42-1155-00	AE-2451-U3E	$1, $2 & $5	300 Bills	110VAC	360.00
42-6935-00	AE-2451-U5E	$1, $2 & $5	500 Bills	110VAC	380.00
42-2054-00	AE-2451-U7E	$1, $2 & $5	700 Bills	110VAC	400.00
42-2055-00	AE-2412-U3E	$1, $2 & $5	300 Bills	24VAC	360.00
42-6936-00	AE-2412-U5E	$1, $2 & $5	500 Bills	24VAC	380.00
42-2056-00	AE-2412-U7E	$1, $2 & $5	700 Bills	24VAC	400.00
42-7348-00	AE-2411-U5EBL	$1 & $5-REALS(BRAZIL)	500 Bills	110VAC	500.00

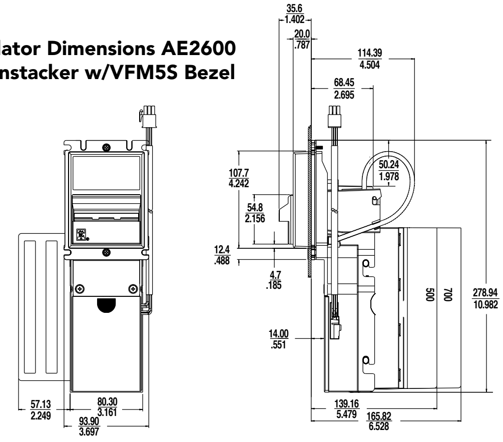
MARS BILL VALIDATORS-AE2600 SERIES


NEW
ACCEPTS NEW
$20 BILL
MARS ELECTRONICS INTERNATIONAL
Upstacker
Downstacker

- High, secure 4-way acceptance of $1, $2, $5, $10, $20 bills (both old and new $20!)
- Advanced sensing technology allows high acceptance rate by accepting torn, wrinkled, faded, damp, dirty, limp, folded or mutilated bills
- Non-contact optical sensors eliminate pinch rollers offering a smooth bill path that reduces jams
- Low Maintenance: Streamlined recognition system sensors are embedded under the smooth plastic bill path and the magnetic pinch roller has been eliminated dramatically reducing debris buildup and the need for cleaning
- Security: Fully-encased optical sensors check paper type and the printing on both sides of the bill, while optical cross channel sensors examine the bill path for foreign objects such as clear tape or strings. This bill validator rejects most of the known counterfeits accepted by ordinary bill acceptors - through the use of multiple wavelength optical sensing and sophisticated data processing
- Bezel option "0" allows for drop-in replacement for the VFM4 Upstacker Validator contains both gaming (MEI gaming) and vending (MDB) interfaces
- Flash memory programmable. As more new U.S. bill designs are released, the validator can easily update the units in the field
- Fully accessible bill path
- Lighted bezel with easy-to-read diagnostic lamps
- Easy-to-use dip switch settings and coupon configuration
- Holds rejected bills
- Self-generated jam-clearing function
- Fully contained control box
- Expandable upstacker magazine
- Flexible interfacing available to accommodate various vending interfaces and communicate with a coin changer
- Locking hasp available
- Accepts bills in any direction
- 2 Year Warranty


Amusement and Entertainment
Bezel:
0=VFM
1= Compact
3 = VFM5S Downstackin
5 = Compact Fitted
AE
26
X
X
Voltage:
1=110 VAC
2= 24 VAC/MBD
Magazine Size:
2= 200 bills
3= 300 bills
5= 500 bills
7= 700 bills
U
X
X
U=Upstacker
D=Downstacker
Custom Configuration:
E=Single Price Harness
M=Includes MDB harness

Validator Dimensions AE2600 Downstacker w/VFM5S Bezel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.787
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4.504
68.45
2.695
50.24
1.978
107.7
4.242
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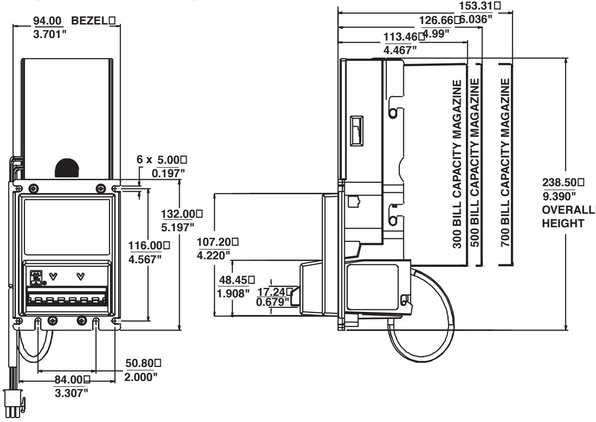
2.156
12.4
.488
4.7
.185
14.00
.551
500
700
278.94
10.982
57.13
2.249
80.30
3.161
93.90
3.697
139.16
5.479
165.82
6.528

Validator Dimensions AE2600 Upstacker w/Compact Bezel


94.00 BEZEL□
3.701"
153.31□
6.036"
126.66□
4.99"
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4.467"
6 x 5.00□
0.197"
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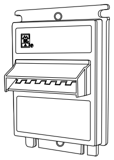
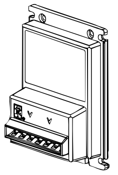
4.567"
107.20□
4.220"
48.45□
1.908"
17.24□
0.679"
300 BILL CAPACITY MAGAZINE
500 BILL CAPACITY MAGAZINE
700 BILL CAPACITY MAGAZINE
238.50□
9.390"
OVERALL□
HEIGHT
50.80□
2.000"
84.00□
3.307"

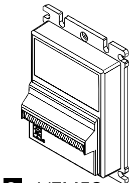
Bezel Options:



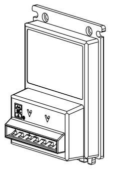
0 – VFM Bezel



1 – VFM Compact Bezel



3 – VFM5S Downstacking Bezel

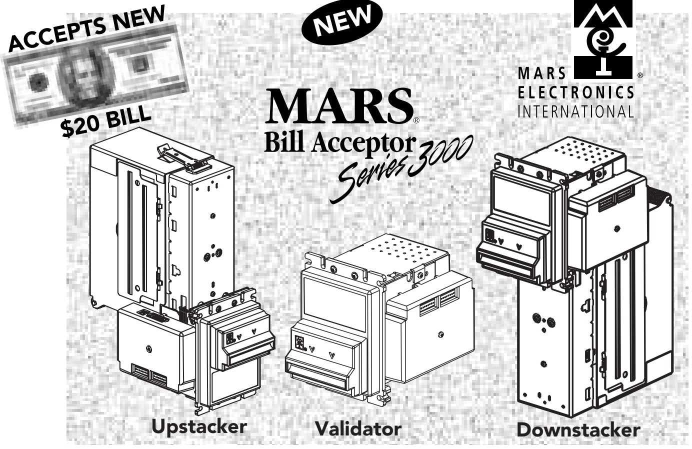


5 – Compact Fitted Bezel

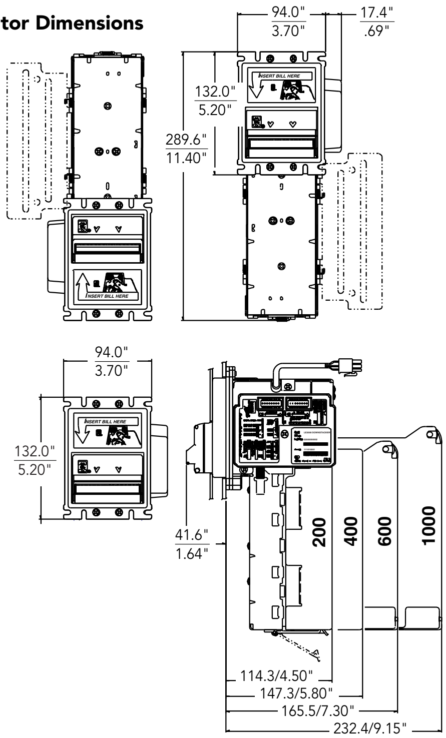
Part Number	Model	To Accept	Bill Capacity	Voltage	Price per ea.
42-7376-00	AE-2601-U3E	$1, $2, $5, $10 & $20	300 Bills	110VAC	455.00
42-7377-00	AE-2601-U5E	$1, $2, $5, $10 & $20	500 Bills	110VAC	475.00
42-7378-00	AE-2601-U7E	$1, $2, $5, $10 & $20	700 Bills	110VAC	495.00
42-7379-00	AE-2602-U5E	$1, $2, $5, $10 & $20	500 Bills	110VAC	475.00
42-7380-00	AE-2602-U7E	$1, $2, $5, $10 & $20	700 Bills	110VAC	495.00
42-7310-00	AE-2611-U7E	$1, $2, $5, $10 & $20	700 Bills	110VAC	495.00
42-7312-00	AE-2651-U3E	$1, $2, $5, $10 & $20	300 Bills	110VAC	455.00
42-7311-00	AE-2651-U5E	$1, $2, $5, $10 & $20	500 Bills	110VAC	475.00
42-7382-00	AE-2631-D5E	$1, $2, $5, $10 & $20	500 Bills	110VAC	475.00
42-7383-00	AE-2631-D7E	$1, $2, $5, $10 & $20	700 Bills	110VAC	495.00

MARS BILL VALIDATORS-LE SERIES

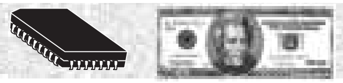
- Exceptional security, virtually rejects all known counterfeits accepted by most other bill validators- through the use of multiple wavelength optical sensing and sophisticated data processing. Optical cross-channel sensors examine the bill path for foreign objects such as clear tape or strings
- Time saving setup due to convenient access to all labeled switches. A simple-to-use configuration coupon allows you to easily set security and bill acceptance options
- High, four-way acceptance, bills can be fed in any direction face up or down
- Custom LED sensors and an automatic self calibration system provide long maintenance free life of exceptional performance for years to come
- Future flexibility in a flash, all models accept $1, $2, $5, $10, $20, $50, and $100 bills can be easily updated electronically to handle new currency designs from the U.S. Bureau of Engraving and Printing
- Streamlined recognition system, sensors are embedded under the smooth plastic bill path and the magnetic head and pinch roller have been eliminated to dramatically reduce jams, debris buildup and the need for cleaning
- High acceptance rate, 95% or greater for U.S $1 thru $100 bills
- Fast bill transport speed, approximately 3 seconds (from bill insertion to completed bill-stacking)
- Illuminated bill validator throat option attracts attention and facilitates ease of use
- Bill Magazines sold separately
- RS232 Module available 42-7347-00
- 110 VAC – 1 Year Warranty



Validator Dimensions



EPROM UPDATE FOR NEW $20.00



Part Number		Price per ea.	L/50	L/100
42-7282-00	Eprom for LE Series	19.99	17.50	14.99
42-7330-00	LE Series PC Update Kit for Flash Updating	135.00	-	-

Configuration Key

8-Premium Model w/ standard magazine capability
9-Premium Model w/ LRC capability
Lottery & Entertainment
1=110 VAC
2= 24 VAC
L= Left Mount Control Board
R= Right Mount Control Board

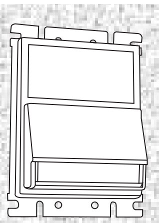
LE 3 X X X X X XX

Series 3000
U=Upstacker
D=Downstacker
Currency Code (e.g. US)
0=Coin Resistant Bezel with Lighted Arrows
1=Coin Resistant Lighted Bezel with Lighted Arrows and Bill Path
2 = Straight Feed (GL5 compatible)

Part Number	Model	To Accept	Bill Capacity	Price per ea.
42-3290-00	LE3801-SR US	$1,$5,$10,$20,$50,$100	Stackerless	420.00
42-3292-00	LE3801-SL US	$1,$5,$10,$20,$50,$100	Stackerless	420.00
42-3291-00	LE3821-SR US	$1,$5,$10,$20,$50,$100	Stackerless	420.00
42-3293-00	LE3821-SL US	$1,$5,$10,$20,$50,$100	Stackerless	420.00
42-3294-00	LE3801-DL US	$1,$5,$10,$20,$50,$100	Sold Sep.	525.00
42-3296-00	LE3801-UL US	$1,$5,$10,$20,$50,$100	Sold Sep.	525.00
42-3295-00	LE3821-DL US	$1,$5,$10,$20,$50,$100	Sold Sep.	525.00
42-7301-00	LE3901-DL US	$1,$5,$10,$20,$50,$100	Sold Sep.	565.00
42-7375-00	LE3901-UL US	$1,$5,$10,$20,$50,$100	Sold Sep.	565.00
208268005	208268005	Bill Magazine for LE3800	200 Bills	39.00
208260004	208260004	Bill Magazine for LE3800	400 Bills	26.00
208262003	208262003	Bill Magazine for LE3800	600 Bills	35.00
208264002	208264002	Bill Magazine for LE3800	1000 Bills	45.00
208262008	208262008	Lockable Removable Cassette for LE 3900 Single Lock	600 Bills	220.00
111508251	111508251	Lockable Removable Cassette for LE 3900 Single Lock	1200 Bills	338.00
208264007	2082464007	Lockable Removable Cassette for LE 3900 Dual Lock	600 Bills	255.00
208266006	208266006	Lockable Removable Cassette for LE 3900 w/Handle and Locking Hasp	600 Bills	290.00
42-7343-00	111633139	RS232 Module for LE Bill Validator	-	15.00

MARS ELECTRONICS INTERNATIONAL

MARS BILL VALIDATORS-ACCESSORIES



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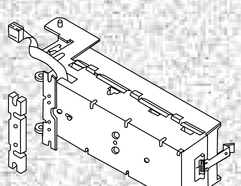
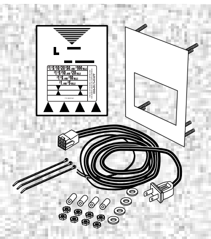
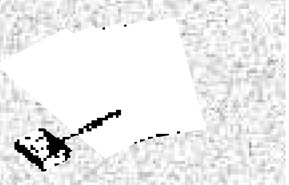


42-6908-00



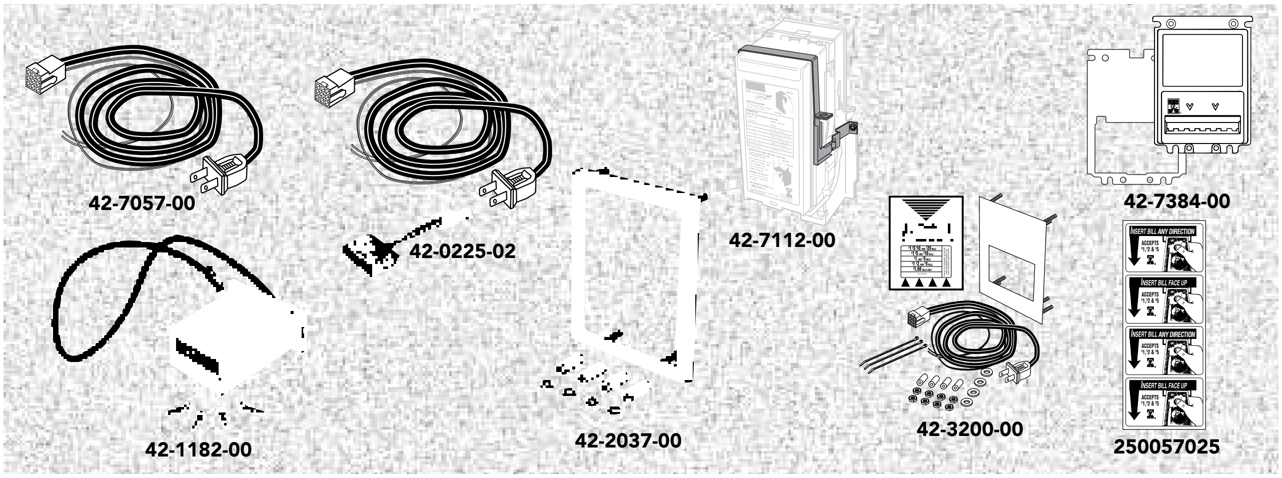
42-7000-00



42-6922-00

Part Number	Mars Part Number	Description	Price per ea.
AL, GL & VFM Series Accessories			
42-1093-00	-	VFM Conversion Kit - Moves black control box from either left or right side of validator to top of validator	8.00
42-7000-00	-	Happ Mounting Kit AL4, GL5 & LE Stackerless & Stacker	18.00
01-12-192	01-12-192	Mars AC cable assembly 110v for AL, GL, LE & VFM Validators	20.00
42-7064-00	04-04-080	Worm gear for VFM	1.90
42-7304-00	09-02-018	Drive Shaft Assembly for VFM	8.00
09-02-026	09-02-026	200 Bill Capacity Magazine for AL & GL Upstacker Validators	14.00
42-7096-00	110848001	Metal bezel bracket for GL5	3.60
42-6909-00	111501062	Mars Downstacker Kit for VFM3S & VFM5S	70.00
111504052	111504052	Stacker motor for VFM4	42.75
111510329	111510329	Mars drive tire assembly wheel and tire for VFM, AL & GL	2.50
42-3221-00	111512328	Mars Coin Resistant Bezel for AL & GL Validators	12.00
111518342	111518342	400 Bill Capacity Magazine for AL & GL Up or Downstacker Validators	23.00
42-1368-00	111519198	Drive Pulley Assembly (2 Required per validator) and Magazine size of choice	2.75
42-6902-00	111583002	Mars Gold Validator Label for AL4 & GL5 Validators	2.00
42-6903-00	111583023	Mars Yellow Validator Label for AL4 Validators	1.79
111583024	111583024	Yellow Label Set for GL5 Includes 4 Labels	1.35
42-7098-00	111594008	Bezel spacer, black plastic for GL5	1.85
111607168	111607168	1,000 Bill Capacity Magazine for AL & GL Up or Downstacker Validators	40.00
42-0981-00	111631010	Locking Clamp for AL & GL 1000 Bill Magazine	35.00
42-6978-00	111631054	Preamp credit pcb for GL5	180.00
42-0717-01	111632001	Mars Mounting Kit VFM3S, VFM5S, AL4 & GL5	22.00
42-6908-00	111632109	Mars Downstacker Kit for GL5 Validators (Requires 42-1368-00 drive pulley assembly (2 required per validator) and magazine size of choice	90.00
42-7049-00	111633053	Preamp Optics for GL5	105.00
111635030	111635030	200 Bill Capacity Magazine for AL & GL Downstacker Validators	33.50
42-7084-00	111635138	Anti-Cheat Clip Tooth Bracket	22.25
42-6922-00	111636021	Calibration Kit for AL4, GL5 & LE Validators	14.00
42-7097-00	111636107	Cross Channel Sensor board for GL5	180.00
42-7083-00	111636124	Preamp optic board for GL5	95.00
42-7095-00	111637034	Power supply board for GL5	160.00
42-7095-00	111637034	Power Supply Board for GL5	160.00
42-7099-00	111638081	Standard PCB for GL5	135.00
42-7065-00	111639033	Control board for GL5	315.00
42-7082-00	111639077	Upstacker LED credit board for GL5	84.95
42-3102-00	112511003	Ribbon Cable - 10 Circuit	7.23
42-7106-00	112512011	Cable Assembly for GL5	12.00
42-3101-00	112513002	Ribbon Cable - 12 Circuit	7.83
42-0717-00	112793001	Mars Mounting Kit VFM2/4, AL4 & GL5	22.00
112866001	112866001	Mars power transformer for GL5	29.95
42-7079-00	11634125	Optic PCB for GL5 & AL4 (Replaces 11637056)	43.95
208262003	208262003	600 Bill Capacity Magazine for AL & GL Up or Downstacker Validators	35.00
LE Series Accessories			
42-7000-00	-	Happ Mounting Kit for AL4, GL5 & LE Stackerless & Stacker	18.00
01-12-192	01-12-192	Mars AC cable assembly 110v for AL, GL, LE & VFM Validators	20.00
42-7347-00	111633139	RS232 Module Kit for LE Series	15.00
42-7330-01	111635150	Cable Only for LE Series Level Converter	70.00
42-6922-00	111636021	Calibration Kit for AL4, GL5 & LE Validators	14.00
42-7330-00	111639158	PC Update Kit for LE Series 3000 (Flashport Software & Level Converter Cable)	135.00
208260004	208260004	400 Bill Capacity Magazine for LE3800 Validators	26.00
208262003	208262003	600 Bill Capacity Magazine for LE3800 Validators	35.00
208264002	208264002	1,000 Bill Capacity Magazine for LE3800 Validators	45.00
208264007	208264007	600 Bill Capacity LRC Magazine for LE 3900 Validators	255.00
208266006	208266006	600 Bill Capacity LRC Magazine for LE3900 Validators (Locks Sold Sep.)	290.00
208268005	208268005	200 Bill Capacity Magazine for LE3800 Validators	39.00

MARS BILL VALIDATORS-ACCESSORIES (CONT.)

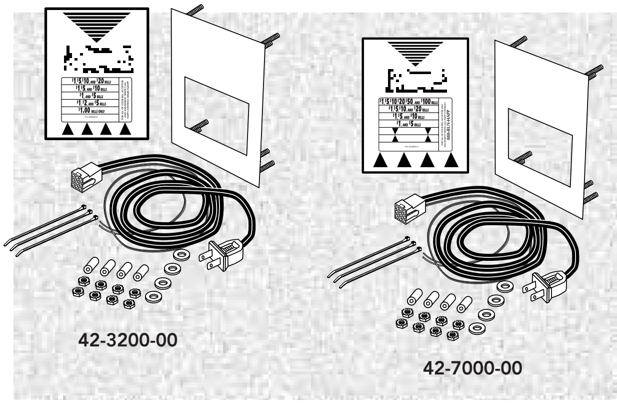


Part Number	Mars Part Number	Description	Price per ea.
AE & VN Series Accessories			
42-7384-00	-	Bezel Modification Kit for Series 2000 Validator to allow Validator to fit into Happ Controls Validator Door	15.00
42-7112-00	-	Happ metal locking hasp for Mars AE & VN Series 2000 with Compact Bezel (Bezel option Number 1) or Fitted Bezel (Bezel option 5)	25.00
42-3200-00	-	Happ Mounting Kit Series 2000 Up & Downstacker	18.00
250021015	250021015	Timing Belt, Large for Mars Series 2000	3.75
250023014	250023014	Timing Belt, Small for Mars Series 2000	1.90
250025018	250025018	Blue Magazine Clip for Mars Series 2000 Magazines	0.65
250044003	250044003	Spring for Blue Magazine Clip for Mars Series 2000 Magazine	0.15
250057025	250057025	Mars Yellow Label Set $1, $2, $5	0.50
250060042	250060042	500 Bill Magazine for AE Downstacker Validators	40.00
250-061-016	250061016	300 Bill Capacity Magazine for AE & VN Upstacker Validators	22.00
250-063-015	250063015	200 Bill Capacity Magazine for AE & VN Upstacker Validators	22.00
42-3297-00	250066027	Mars Blue Plastic Locking Hasp Kit for Series 2000 VN & AE Magazine (2 Per Box)	59.16
250-068-021	250068021	700 Bill Capacity Magazine for AE & VN Upstacker Validators	40.00
250068043	250068043	700 Bill Magazine for AE Downstacker Validators	45.00
250-069-017	250069017	500 Bill Capacity Magazine for AE & VN Upstacker Validators	35.00
42-3141-00	250070006	Mars Power Harness for Series 2000 Validators	15.00
42-7224-00	250071009	MDB Harness, 24v for VN23 & VN 25 Validators	19.95
250068009	280068009	Happ pulse meter kit for Mars Series 2000 (Models with 110v Only)	20.00
Other Miscellaneous Accessories			
42-7057-00	01-12-139	Mars Harness, 2 Wire Line Cord & Credits with Plug	8.00
42-0225-02	01-12-148	Mars Harness, 2 Wire Line Card with Plug + Inhibit Plug	15.00
42-7303-00	04-02-020	Gear Helical for stacker motor for LO Series	1.50
42-3134-00	112511042	Mars Harnesses, 110 v	40.00
42-2037-00	91-16-159-4	Mars Mounting Plate Kit for Metal Door	20.00
42-1182-00	91-16-279-4	Pulse Meter Kit for Mars VFM, AL, GL and LE Validators	39.00

VALIDATOR MOUNTING KITS-MARS

- Kit includes the necessary items required to mount bill validator to either wood or steel
- Kit includes: Bright yellow decal with black printing, Mounting Plate with Pem Studs, Power Cable with Plug, 3 Tie Wraps, Spacers, Washers, and Nuts with Keps
- For use on either Stackerless, Upstacker, or Downstacker applications as noted

Part Number		Price per each
42-3200-00	Mounting Kit for Mars Series 2000 (Upstacker & Downstacker)	18.00
42-7000-00	Mounting Kit for Mars AL, GL & LE Series (Stackerless, Upstacker & Downstacker)	18.00



BILL VALIDATORS

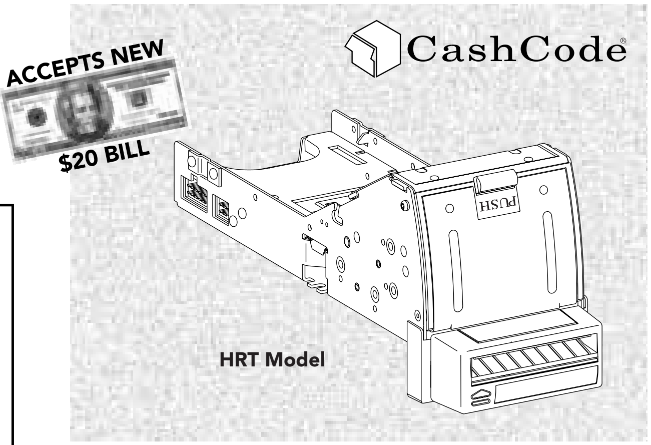
CashCode manufactures the most reliable, accurate and serviceable bill validators in today's global market. Designed for domestic and international currency validation. CashCode's Amazing Series Bill Validators feature the latest advances in bill validation technology. Including patented non-contact magnetic sensing, the first true beltless transport system and an easily accessible Clam Shell design. CashCode validators are performance driven, field tested and are backed by an unparalleled one year warranty.

Standard Features:

- 12-Point Self Diagnostic front color LED - Takes the guess work out of why a validator is not functioning - checks for user failure or mechanical failure
- Patented Non-Contact magnetic sensing - No pinch rollers - Reduces the likelihood of jamming
- Patented design incorporates multiple optical and magnetic sensors. Scans both sides of the bill simultaneously, maximizing detection of counterfeit bills
- Maintains magnetic sensor recognition system in non-magnetic currency validators for maximum security
- Patented Clam Shell design allows easy access to bill path, one push and it's open, no tools required
- Auto tuning and calibration on every bill insertion
- Stacker and cassette designed into one LRC (Lockable, Removable Cassette)
- Anti stringing protection
- Four way bill acceptance (all models) maximum acceptance rate of street grade bills: 96% on first insertion and 99% on second attempt
- Serial, Pulse and RS232 interfaces available
- Interfaces and denominations switch selectable
- Software socketed EPROM
- Maximum time between servicing, validator mean time between failures 1.2 million cycles and LRC mean time between failures 2 million cycles
- 36 harness with flying leads included
- Decal included
- Locks available
- One year warranty
- International models available: Brazil, Canada, Colombia Chile, Mexico, Venezuela
  Please inquire for additional countries
- +12 Vdc

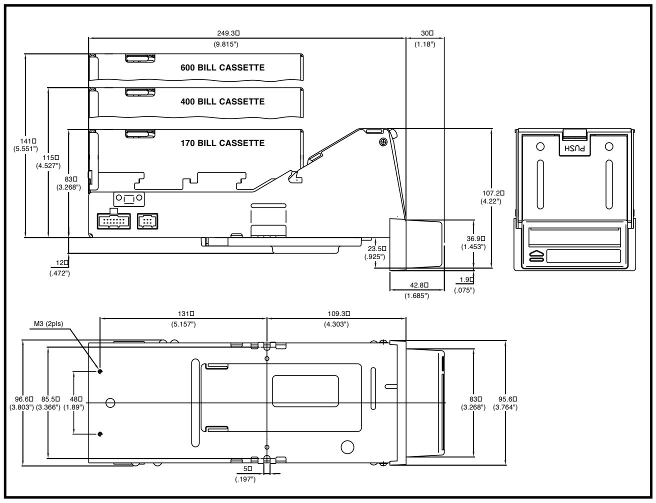
HRT SERIES

- Standard features (list above) plus:
- **New** Horizontal, Retractable, Telescopic (HRT) validator is designed for compact spaces requiring horizontal configurations.

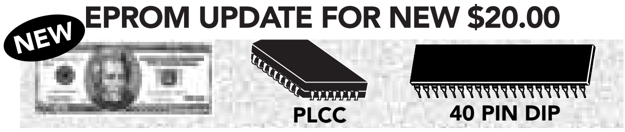


HRT Model

HRT VERSION DIMENSIONS



EPROM UPDATE FOR NEW $20.00



Happ Part No.	CashCode Part No.	Model	Ea. Price
42-7273-00	US6R25	AMZUSA-Plus-HRT -Std (PLCC type)	5.50
42-7387-00	US40A-25	AMZUSA-Plus-HRT -Std. (40 Pin DIP type)	42.50

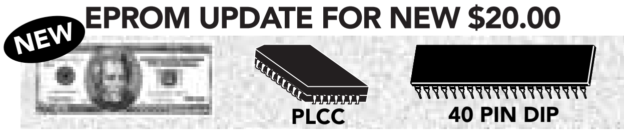
Part Number	Model	Old CashCode Number	New CashCode Number	To Accept	Price per ea.
42-6964-00	Amazing 154 HRT w/o LRC* & HRT Unv. Telescopic Bracket	AMZUSA-154-HRT	US2-CSB-ST07-HRT	$1, $5/four-ways	270.00
42-6965-00	Amazing Plus HRT w/o LRC* & HRT Unv. Telescopic Bracket	AMZUSA-PLUS-HRT	US4-CSB-ST07-HRT	$1, $5, $10, $20/ four-ways	385.00
42-6966-00	Amazing Plus 1100 HRT w/o LRC* & HRT Unv. Telescopic Bracket	AMZUSA-PLUS-1100-HRT	US6-CSR-ST07-HRT	$1, $5, $10, $20, $50, $100/four ways	415.00
42-6984-00	Universal Telescopic Bracket for HRT Stacker Series Validators	AMZUSA-HRT-UBR001	–	–	128.23

*Lockable Removable Cassette (LRC) sold separately. See page 81

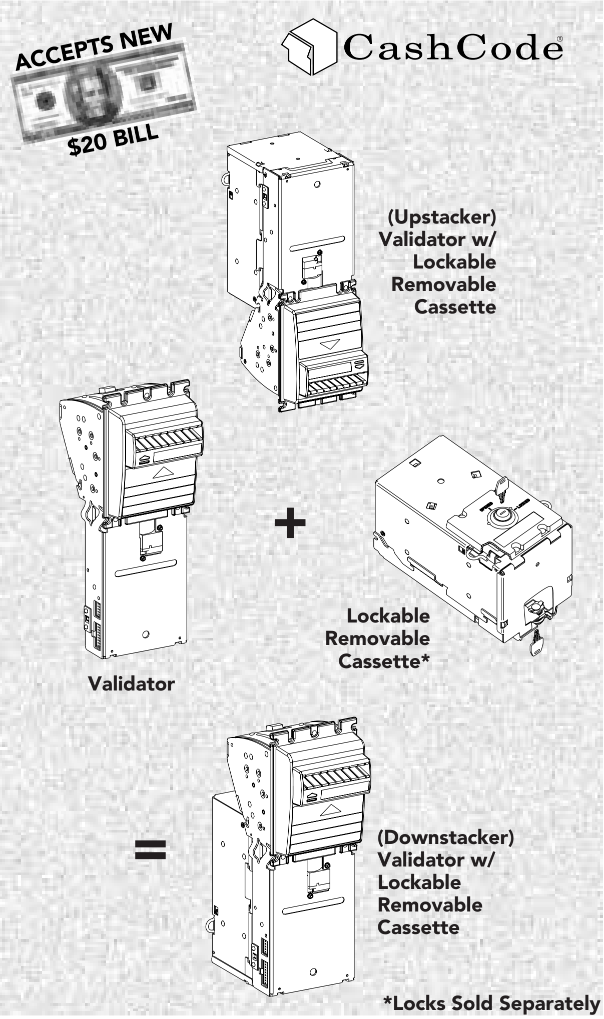
UNV STACKER SERIES

- Standard features (see page 80) plus:
- **New Universal (UNV)** Streamline design can be used in either up-stacker or down-stacker configurations.

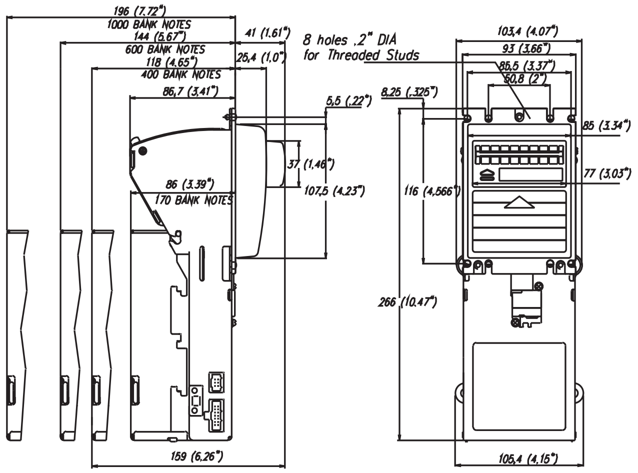
EPROM UPDATE FOR NEW $20.00


NEW
PLCC
40 PIN DIP

Happ Part No.	CashCode Part No.	Model	Ea. Price
42-7272-00	US4A25	AMZUSA-Plus-UNV -Std (PLCC type)	21.95
42-7387-00	US40A-25	AMZUSA-Plus-UNV (40 Pin DIP type)	42.50


ACCEPTS NEW
$20 BILL
CashCode®
(Upstacker) Validator w/ Lockable Removable Cassette
Validator
+
Lockable Removable Cassette*
=
(Downstacker) Validator w/ Lockable Removable Cassette
*Locks Sold Separately

STACKER VERSION DIMENSIONS

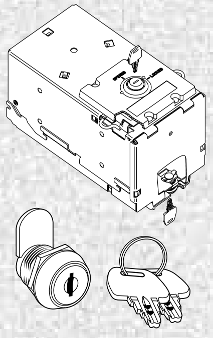

196 (7,72")
1000 BANK NOTES
144 (5,67")
600 BANK NOTES
118 (4,65")
400 BANK NOTES
86,7 (3,41")
41 (1,61")
25,4 (1,0")
8 holes ,2" DIA for Threaded Studs
5,5 (,22")
37 (1,46")
107,5 (4,23")
86 (3,39")
170 BANK NOTES
159 (6,26")
103,4 (4,07")
93 (3,66")
85,5 (3,37")
50,8 (2")
8,25 (,325")
85 (3,34")
77 (3,03")
116 (4,566")
266 (10,47")
105,4 (4,15")

Part Number	Model	Old CashCode Number	New CashCode Number	To Accept	Price per ea.
42-6971-00	Amazing 154 UNV w/o LRC*	AMZUSA-154-UNV	US2-CSB-ST07-UNV	$1, $5/four-ways	270.00
42-6970-00	Amazing Plus UNV w/o LRC*	AMZUSA-PLUS-UNV	US4-CSB-ST07-UNV	$1, $5, $10, $20/four-ways	385.00
42-6972-00	Amazing Plus 1100 UNV w/o LRC*	AMZUSA-PLUS-1100-UNV	US6-CSR-ST07-UNV	$1, $5, $10, $20, $50, $100/four-ways	415.00
42-3288-00	Canadian Amazing Plus 2100 UNV w/o LRC*	AMZCDN-2100-UNV	CA6-CSR-STII-ML	CDN $2, $5, $10, $20, $50, $100	560.00

*Lockable Removable Cassette (LRC) sold separately

LOCKABLE REMOVABLE CASSETTES (LRC)

LRC pictured with locks (Locks sold separately)


Lock for LRC

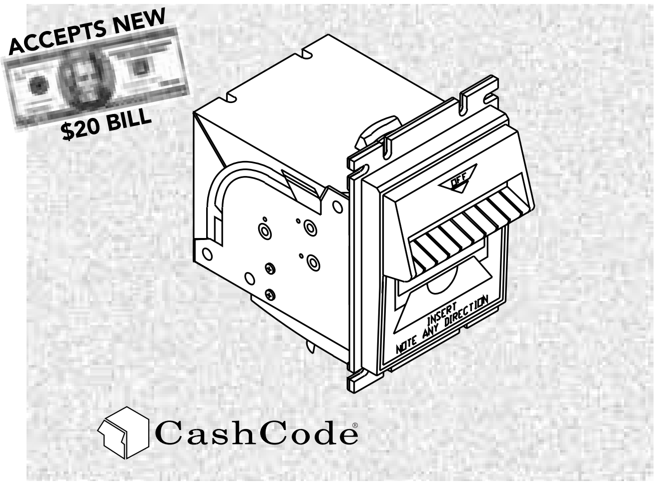
Part Number CashCode #	Description	Width	Capacity	Cash Code #	Price Per Ea.
42-6957-00	Lockable Removable Cassette (LRC)	67mm	170 Bills	AMZCST170-67	65.00
42-6958-00	Lockable Removable Cassette (LRC)	67mm	400 Bills	AMZCST400-67	75.00
42-6959-00	Lockable Removable Cassette (LRC)	67mm	600 Bills	AMZCST600-67	85.00
42-6960-00	Lockable Removable Cassette (LRC)	67mm	1,000 Bills	AMZCST1000-67	95.00
42-6998-00	Lockable Removable Cassette (LRC)	71mm	400 Bills	AMZCST400-71	75.00
42-3289-00	Lockable Removable Cassette (LRC)	71mm	600 Bills	AMZCST600-71	85.00
42-3231-00	Lockable Removable Cassette (LRC)	71mm	1,000 Bills	AMZCST1000-71	95.00
42-2046-00	Lock Mounting Kit to prevent removal of stacker from acceptor	-	-	AMZUSA-CC001	20.00

Note:
67mm Width bills for USA Currency
71mm Width bills for Canada Currency

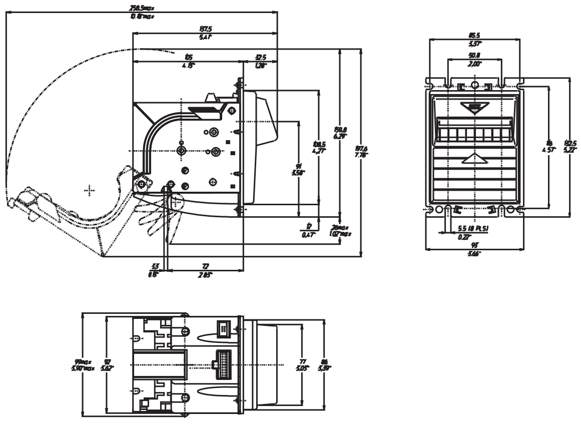
CashCode®

STACKERLESS SERIES

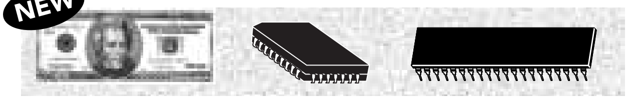
- Patented Clam Shell design allows easy access to bill path, one push and it's open, No tools required
- 12-Point Self Diagnostic front color LED - Takes the guess work out of why a validator is not functioning - checks for user failure or mechanical failure
- Patented Non-Contact magnetic sensing - No pinch rollers - Reduces the likelihood of jamming
- Patented design incorporates multiple optical and magnetic sensors. Scans both sides of the bill simultaneously, maximizing detection of counterfeit bills
- Maintains magnetic sensor recognition system in non-magnetic currency validators for maximum security
- Auto tuning and calibration on every bill insertion
- Anti stringing protection
- Four way bill acceptance (all models) maximum acceptance rate of street grade bills: 96% on first insertion and 99% on second attempt
- Serial and Pulse interfaces
- Interfaces and denominations switch selectable
- Software socketed EPROM
- Maximum time between servicing
- Validator mean time between failures 1.2 Million cycles
- 36 harness with flying leads included
- Decal included
- One year warranty
- +12 Vdc



STACKERLESS VERSION DIMENSIONS



NEW EPROM UPDATE FOR NEW $20.00



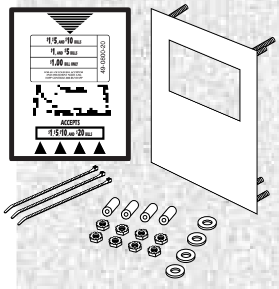
Happ Part No.	CashCode Part No.	Model	Ea. Price
42-7325-00	US4XA25	AMZUSA-Plus-STACKERLESS -Std (PLCC type)	21.95
42-7386-00	US41X-25	AMZUSA-Plus -STACKERLESS -Std. (40 Pin DIP type)	42.50

Part Number	Model	Old CashCode Number	New CashCode Number	To Accept	Price per ea.
42-6951-00	Amazing 154 Stackerless	AMZUSA-154	US2-PLS-BV05	$1, $5/four-ways	200.00
42-6952-00	Amazing Plus Stackerless	AMZUSA-PLUS	USS4-CSO-BV05	$1, $5, $10, $20/four-ways	265.00
42-3234-00	Amazing Plus (Canadian)	AMZCDN-PLUS	CA4-CSO-BV15	CDN $2, $5, $10, $20	375.00

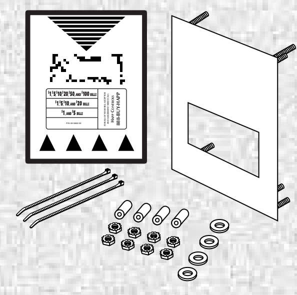
VALIDATOR MOUNTING KITS-CASHCODE

- Kit includes the necessary items required to mount bill validator to either wood or steel
- Kit includes: Bright yellow decal with black printing, Mounting Plate with Pem Studs, 3 Tie Wraps, Spacers, Washers, and Nuts with Keps
- For use on either Stackerless, Upstacker, or Downstacker applications as noted

Part Number		Price per each
42-7002-00	Mounting Kit for CashCode Stackerless (Upstacker & Downstacker)	12.00
42-3199-00	Mounting Kit for CashCode UNV Universal Stacker (Upstacker & Downstacker)	12.00

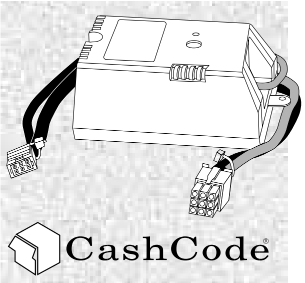


42-7002-00



42-3199-00

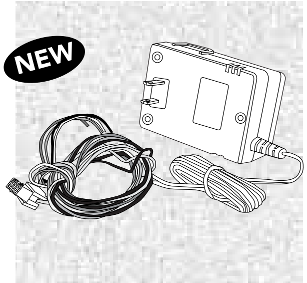
POWER SUPPLY ADAPTER



- Allows CashCode validators to be used in pre wired 110vac Mars applications to run 12vdc CashCode validator
- Simply plug the Mars connector end of the power supply into the Amp 9-Pin White connector and plug the other end directly into the CashCode validator (6-Pin Black Molex Connector)
- Ref‚AMZPS-AMP-265/12

Part Number		Price per each
42-6934-00	CashCode power supply adapter Mars 9-pin (110vac) to CashCode 6-pin (12vdc)	50.00

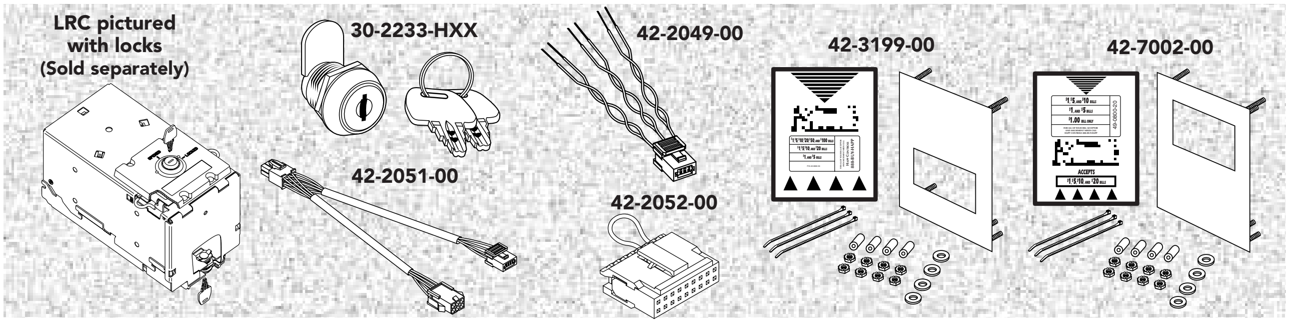
PLUG IN CASHCODE TRANSFORMER



- Allows an easy source for +12vdc required for CashCode Validators
- Simply plug into any 110vac wall outlet and then plug other end into CashCode bill validator

Part Number		Price per each
80-0075-00	Plug-In CashCode Transformer	20.00

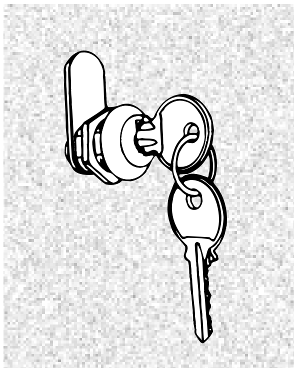
CASHCODE ACCESSORIES



Part Number	CashCode Part Number		Price per ea.
42-6934-00	AMZPS-AMP-265/12	CashCode Power Supply Adapter Mars 9-pin (110vac) to CashCode 6-pin (12vdc)	50.00
80-0075-00	-	Plug-in Wall Transformer to CashCode Validator (120vac to 12vdc)	20.00
42-2049-00	AMZXXX-12-06	Harness DC Power 6 Pin	6.00
42-2051-00	AMZXXX-MDB	Harness MDB	12.00
42-2052-00	AMZXXX-PUL-18	Connector Pulse 18 Pin	12.00
42-2050-00	AMZXXX-PC-18	Connector Serial 18 Pin	14.00
42-2053-00	AMZXXX-M-J-14-18	Serial Harness Adapter, JCM 14 Pin to CashCode 18 Pin	12.00
42-3199-00	-	Happ Mounting Kit for ALL CashCode UNV Series Upstacker & Downstacker	12.00
42-7002-00	-	Happ Mounting Kit for CashCode ALL Stackerless Series	12.00
42-6961-00	AMZUSA-MK-PLUS-SU	Mounting kit for Upstacker Plus Series Validators	12.00
42-6962-00	AMZUSA-MK-PLUS-SD	Mounting kit for Downstacker Plus Series Validators	12.00
42-6982-00	AMZUSA-MK-1100-SU	Mounting kit for Upstacker Plus-1100 Series Validators	12.00
42-6983-00	AMZUSA-MK-1100-SD	Mounting kit for Downstacker Plus-1100 Series Validators	12.00
42-3230-00	AMZ-CDN-MK-UNV	Mounting Kit for Canadian Amazing Plus UNV Validator	12.00
42-3235-00	AMZ-CDN-MK-PLUS	Mounting Kit for Canadian Amazing PLUS Stackerless Validator	12.00
42-6984-00	AMZUSA-HRT-UBR001	Universal Telescopic Bracket for HRT Stacker Series Validators	100.00
42-6957-00	AMZCST170-67	LRC for Amazing Series Bill Validator 170 bill capacity	65.00
42-6958-00	AMZCST400-67	LRC for Amazing Series Bill Validator 400 bill capacity	75.00
42-6959-00	AMZCST600-67	LRC for Amazing Series Bill Validator 600 bill capacity	85.00
42-6960-00	AMZCST1000-67	LRC for Amazing Series Bill Validator 1,000 bill capacity	95.00
42-2046-00	AMZUSA-CC001	Lock Mounting Kit to prevent removal of stacker from validator	20.00
30-2223-H01	-	Lock for CashCode LRC, House Key H01	6.00
30-2223-H02	-	Lock for CashCode LRC, House Key H02	6.00
30-2223-H03	-	Lock for CashCode LRC, House Key H03	6.00
30-2223-H04	-	Lock for CashCode LRC, House Key H04	6.00
30-2223-H05	-	Lock for CashCode LRC, House Key H05	6.00
30-2223-H06	-	Lock for CashCode LRC, House Key H06	6.00
30-2223-H07	-	Lock for CashCode LRC, House Key H07	6.00
30-2223-H08	-	Lock for CashCode LRC, House Key H08	6.00
30-2223-H09	-	Lock for CashCode LRC, House Key H09	6.00
30-2223-H10	-	Lock for CashCode LRC, House Key H10	6.00

LOCKS

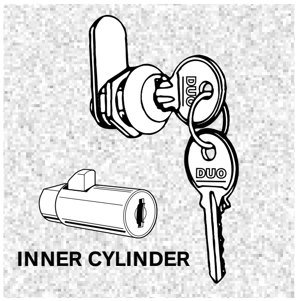
THRIFTY SINGLE BITTED LOCKS



- Used on most types of coin-operated equipment
- Economical single-bitted, 5-disc, tumbler lock
- Great for O.E.M. applications or as a general replacement lock
- Strong, dependable die-cast construction
- 90 degree turn that allows the key to be removed only in the locked position
- Each lock is equipped with 2 keys and 1-1/8" straight cam

Length	Keying	Key #	Part Number	Price 1-49	Price 50-99	Price 100+
5/8"	Keyed Alike	New #	30-2224-XXX	2.19	2.09	1.99
5/8"	Keyed Different		30-2224-KD	2.14	2.04	1.94
5/8"	House Keyed Alike	631	30-2224-631	2.09	1.99	1.89
5/8"	House Keyed Alike	641	30-2224-641	2.09	1.99	1.89
5/8"	House Keyed Alike	644	30-2224-644	2.09	1.99	1.89
5/8"	House Keyed Alike	679	30-2224-679	2.09	1.99	1.89
7/8"	Keyed Different		30-3141-KD	2.14	2.04	1.94
7/8"	House Keyed Alike	631	30-2225-631	2.09	1.99	1.89
7/8"	House Keyed Alike	641	30-2225-641	2.09	1.99	1.89
7/8"	House Keyed Alike	644	30-2225-644	2.09	1.99	1.89
7/8"	House Keyed Alike	679	30-2225-679	2.09	1.99	1.89
1-1/8"	Keyed Different		30-3143-KD	2.24	2.14	2.04
1-1/8"	House Keyed Alike	631	30-2226-631	2.19	2.09	1.99
1-1/8"	House Keyed Alike	641	30-2226-641	2.19	2.09	1.99
1-1/8"	House Keyed Alike	644	30-2226-644	2.19	2.09	1.99
1-1/8"	House Keyed Alike	679	30-2226-679	2.19	2.09	1.99

DUO CAM LOCKS, TRIPLE BITTED



- High security, 14 tumbler mechanism
- For existing key series, see your sales representative
- Keyed Different locks come with 2 keys per lock and a 1-1/4" straight cam
- Keyed Alike locks come with a 1-1/4" straight cam
- Keys must be purchased separately for Keyed Alike locks

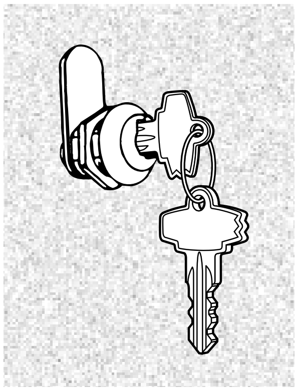
Length	Keying	Part Number	Price 1-49	Price 50-99	Price 100+
5/8"	Keyed Alike	30-1134-XXX	11.89	11.79	11.69
5/8"	Keyed Different	30-1134-KD	11.84	11.74	11.64
7/8"	Keyed Alike	30-1138-XXX	11.89	11.79	11.69
7/8"	Keyed Different	30-1138-KD	11.84	11.74	11.64
1-1/8"	Keyed Alike	30-1142-XXX	11.99	11.89	11.79
1-1/8"	Keyed Different	30-1142-KD	11.94	11.84	11.74
Inner Cylinder	Keyed Alike	30-1898-XXX	12.09	11.99	11.89
Inner Cylinder	Keyed Different	30-1898-KD	12.04	11.94	11.84
Keys		30-1904-XXX	3.99	–	–

MINIMUM LOCK ORDER POLICY

For Cam Type or Inner Cylinder Locks

New keyed alike series:	Minimum 25 locks
Reorders of keyed alike locks:	Minimum 10 locks

DOUBLE BITTED LOCKS

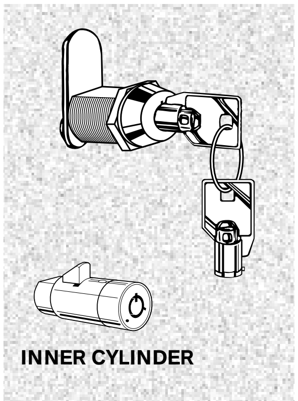


- The standard for the coin operated industry
- Double-bitted, 6-disc, tumbler locks gives extra security
- 2 sets of 3 tumblers lock in opposite direction
- Shiny nickel finish with a die cast construction
- 90 degree turn with key coming out in the locked position only
- Each lock comes with 1-1/4" straight cam and 1 key

Length	Keying	Key #	Part Number	Price 1-49	Price 50-99	Price 100+
7/8"	House K.A.*	3001	30-1326-7505	2.89	2.79	2.69
7/8	House K.A.*	3002	30-1326-7506	2.89	2.79	2.69
7/8"	House K.A.*	3003	30-1326-7507	2.89	2.79	2.69
7/8"	House K.A.*	3004	30-1326-7508	2.89	2.79	2.69
7/8"	House K.A.*	3005	30-1326-7509	2.89	2.79	2.69
1-1/8"	House K.A.*	3006	30-2485-7500	2.99	2.89	2.79
1-1/8"	House K.A.*	3007	30-2485-7501	2.99	2.89	2.79
1-1/8"	House K.A.*	3008	30-2485-7502	2.99	2.89	2.79
1-1/8"	House K.A.*	3009	30-2485-7503	2.99	2.89	2.79
1-1/8"	House K.A.*	3010	30-2485-7504	2.99	2.89	2.79

*K.A.= KEYED ALIKE

7 PIN TUMBLER LOCKS by CHICAGO LOCK

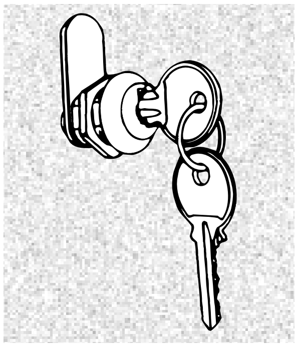


- 7-pin tumbler locks provides high security
- Bright chrome finish
- 90 degree turn
- Key may be removed only in the locked position
- Keyed Different locks come with 2 keys per lock and a 1-1/4" straight cam
- Keyed Alike locks come with a 1-1/4" straight cam
- Keys for Keyed Alike locks must be purchased separately

Length	Keying	Key #	Part Number	Price 1-49	Price 50-99	Price 100+
5/8"	Keyed Alike	New #	30-2201-XXX	4.49	4.29	3.99
5/8"	Keyed Different		30-2202-KD	4.39	4.19	3.89
7/8"	Keyed Alike	New #	30-2203-XXX	4.69	4.49	4.29
7/8"	Keyed Different		30-2203-KD	4.59	4.39	4.19
1-1/8"	Keyed Alike	New #	30-2207-XXX	4.89	4.69	4.49
1-1/8"	Keyed Different		30-2207-KD	4.79	4.59	4.39
Keys only for keyed alike locks			30-2210-XXX	1.99	-	-
Inner Cylinder (I.C.)						
I.C.	Keyed Alike		30-2481-XXX	5.99	5.69	5.39
I.C.	Keyed Different		30-2481-KD	5.89	5.59	5.29
I.C.	House Keyed Alike	802	30-2481-SP802	5.99	5.69	5.39
I.C.	House Keyed Alike	803	30-2481-SP803	5.99	5.69	5.39
I.C.	House Keyed Alike	804	30-2481-SP804	5.99	5.69	5.39
Keys only for keyed alike locks			30-3156-XXX	1.50	-	-

LOCKS

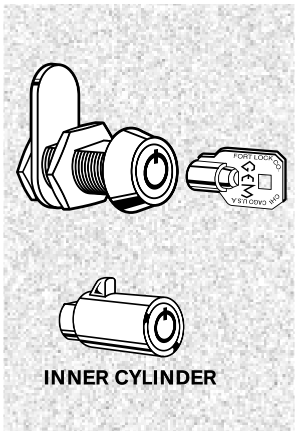
FORT LOCKS, SINGLE BITTED



- Great for locations with medium security
- High-quality, bright finish die-cast metal construction
- Key turns 90 degrees
- Key may be removed only in the locked position
- Keyed Different locks come with 2 keys per lock and a 1-1/4" straight cam
- Keyed Alike locks come with 1 key per lock and a 1-1/4" straight cam

Length	Keying	Key #	Part Number	Price 1-49	Price 50-99	Price 100+
5/8"	Keyed Alike	New #	30-3140-XXX	2.69	2.49	2.29
7/8"	Keyed Alike	New #	30-1406-XXX	2.69	2.49	2.29
7/8"	Keyed Different		30-1405-000	2.59	2.39	2.19
7/8"	House Keyed Alike	SB96	30-4720-SB96	2.59	2.39	2.19
7/8"	House Keyed Alike	SB97	30-4721-SB97	2.59	2.39	2.19
7/8"	House Keyed Alike	SB99	30-4723-SB99	2.59	2.39	2.19
1-1/8"	Keyed Alike	New #	30-3144-XXX	2.89	2.69	2.49
1-1/8"	Keyed Different		30-3144-KD	2.79	2.59	2.39
1-1/8"	House Keyed Alike	SB96	30-4724-SB96	2.79	2.59	2.39
1-1/8"	House Keyed Alike	SB97	30-4725-SB97	2.79	2.59	2.39
1-1/8"	House Keyed Alike	SB99	30-3144-SB99	2.79	2.59	2.39
Keys Only, for Keyed Alike Locks			30-3156-XXX	1.50	-	-

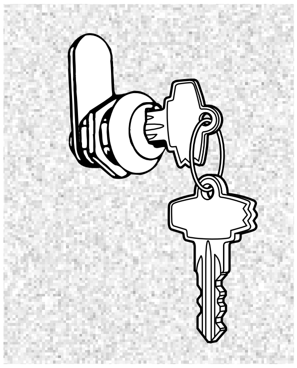
GEM LOCKS



- High security 7 pin tumbler locks with round key
- High-quality, bright finish die-cast metal construction
- Key turns 90 degrees
- Key may be removed only in the locked position
- Comes with 1-1/4" straight cam
- Keys must be ordered separately for Keyed Alike locks
- Keyed Different locks come with 2 keys
- Keys must be added separately

Length	Keying	Part Number	Price 1-49	Price 50-99	Price 100+
3/8"	Keyed Alike	30-1501-XXX	7.89	7.79	7.69
5/8"	Keyed Alike	30-1500-XXX	6.99	6.89	6.79
5/8"	Keyed Different	30-1500-KD	6.89	6.79	6.69
7/8"	Keyed Alike	30-1502-XXX	7.19	6.99	6.79
7/8"	Keyed Different	30-1502-KD	7.09	6.89	6.69
1 1/8"	Keyed Alike	30-1504-XXX	7.39	7.19	6.99
1 1/8"	Keyed Different	30-1504-KD	7.29	7.09	6.89
Inner Cylinder	Keyed Alike	30-1508-XXX	8.59	8.29	7.99
Inner Cylinder	Keyed Different	30-1508-KD	8.49	8.19	7.89
Keys Only, for Keyed Alike Locks		30-1510-XXX	1.49	–	–

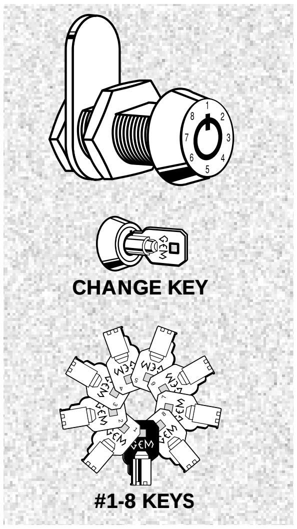
FORT LOCKS, DOUBLE BITTED



- Double bitted locks offer a higher security than single bitted locks
- High-quality, bright finish die-cast metal construction
- Key turns 90 degrees
- Key may be removed only in the locked position
- Keyed Different locks come with 2 keys per lock and a 1-1/4" straight cam
- Keyed Alike locks come with 1 key per lock and a 1-1/4" straight cam

Length	Keying	Key #	Part Number	Price 1-49	Price 50-99	Price 100+
7/8"	Keyed Alike	New #	30-3146-XXX	3.49	3.39	3.29
7/8"	Keyed Different		30-3145-KD	3.39	3.29	3.19
1-1/8"	Keyed Alike	New #	30-3148-XXX	3.59	3.49	3.39
1-1/8"	Keyed Different		30-3147-KD	3.49	3.39	3.29
Keys Only, for Keyed Alike Locks			30-3149-XXX	1.50	-	-

GEMATIC LOCKS



- This high-security, 'top of the line' lock has an 8-Pin tumbler mechanism.
- Programmable combinations allow you to change the combinations, on the spot, in just seconds.
- Saves replacing the entire lock in case a key is lost or stolen.
- Gematic locks consist of 8 different lock combinations
- Comes with 1-1/4" straight cam
- A gold finished change key makes identification easy
- Operating keys and Change keys must be ordered separately

Length	Keying	Part Number	Price 1-49	Price 50-99	Price 100+
5/8"	Keyed Alike	30-1600-XXX	11.89	11.49	11.09
5/8"	Keyed Different	30-1600-KD	11.79	11.39	10.99
7/8"	Keyed Alike	30-1602-XXX	12.29	11.89	11.49
7/8"	Keyed Different	30-1602-KD	12.19	11.79	11.39
1 1/8"	Keyed Alike	30-1604-XXX	12.89	12.49	12.09
1 1/8"	Keyed Different	30-1604-KD	12.79	12.39	11.99
Inner Cylinder	Keyed Alike	30-1608-XXX	12.69	12.29	11.89
Keys, #1 thru #8		30-1626-000	1.50	–	–
Change Key		30-1624-000	1.79	–	–

MINIMUM LOCK ORDER POLICY

For Cam Type or Inner Cylinder Locks

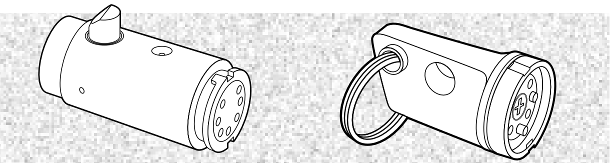
New keyed alike series: Minimum 25 locks

Reorders of keyed alike locks: Minimum 10 locks

LOCKS

VAN INNER CYLINDER LOCK

- State-of-the-art, American made security system
- Flat face design and absence of a “keyway” make Van locks virtually pull resistant
- One piece housings make Van lock virtually punch resistant
- Keys sold separately
- Hardened steel pin in the face of the lock makes Van locks virtually drill resistant
- Keys are practically hand made, no key machines or blank keys can duplicate these keys.
- New K5 metal keys are more durable than plastic keys



Part Number		Price per ea.	25+	50+
30-1882-XXX	Van Inner Cylinder Lock, Keyed Alike	13.69	12.69	11.69
30-1885-XXX	Key Only, for Van Inner Cylinder Lock	4.89	—	—

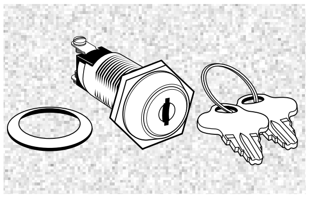
MINIMUM LOCK ORDER POLICY

For Cam Type or Inner Cylinder Locks

New keyed alike series:	Minimum 25 locks
Reorders of keyed alike locks:	Minimum 10 locks

SWITCH LOCKS

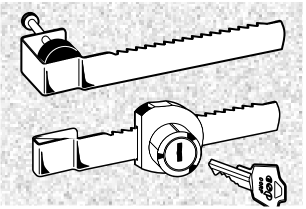
- Chicago Lock style with double bit keys
- Key is removable in either the ON or OFF position
- Screw type terminals
- 1-1/2" barrel length
- 2 keys per lock



Type	Length	Keying	Part Number	Price Ea.	Price L/10	Price L/20
Double Bit Key	1-1/2"	Alike	30-1086-XXX	11.69	11.49	11.29

SHOWCASE SLIDING LOCK ASSEMBLY

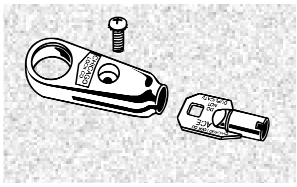
- Used for locking sliding glass doors, showcases, display cases, etc.
- Brite chrome finish resists rust and corrosion
- 3-1/2" locking slide
- Includes 2 keys, keyed alike



Part Number		Price per ea.	L/6
30-2194-ES202	Showcase Sliding Lock Assembly	9.69	8.99

TUBULAR KEY HOLDER

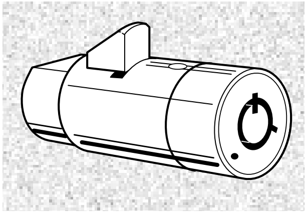
- Supports and strengthens key to eliminate breakage
- Allows for easier and faster opening of locks
- Fastened with an 8-32 screw included with holder



Part Number		Price per ea.	L/12
30-1049-00	Tubular Key Holder	9.25	8.50

FLEX-ACE INNER CYLINDER LOCKS

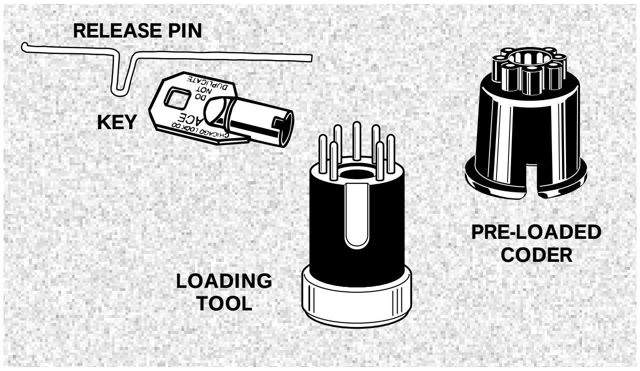
- Flex-Ace Quick-Change locks allows you to change tumbler combinations, at the location, quickly and easily.
- Enables you to key all your equipment to one key number
- Keys sold separately



Diameter	Keying	Part Number	Price 1-49	Price 50-99	Price 100+
1-5/8"	Keyed Alike	30-1875-XXX	10.99	10.49	9.99
—	Key	30-1099-XXX	1.99	—	—

FLEX-ACE PARTS FOR CHANGING KEY COMBINATIONS

- Allows you to change the tumblers in the lock without removing the lock from the cabinet.
- Keep additional coders and keys to change key combinations quickly.
- Order new tumbler combinations to be shipped in coder with keys cut to the new combination.
- Remove lock cap from unlocked old lock with release pin and insert new tumblers with the loading tool.

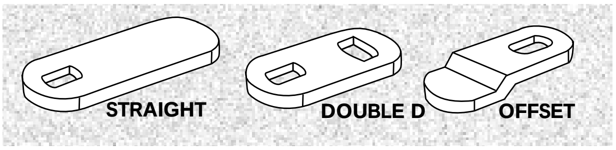


Part Number		Price per each
30-1083-00	Pre-Loaded Coder for for Flex-Ace	2.19
30-1084-00	Loading Tool for Flex-Ace Coders	8.99
30-1085-00	Release Pin for Flex-Ace Coders	1.49
30-1099-XXX	Keys for Flex-Ace Coders	2.29

Visit Our Web Site:
for NEW Product Updates!!

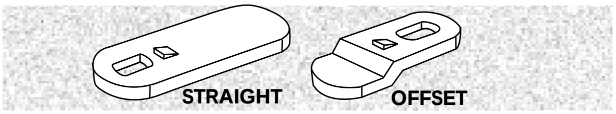
CAMS

ACE, GEM & GEMATIC CAMS



Type	Length	Offset	Part Number	Price per ea.
Straight	3/4"	—	30-1037-750	.50
Straight	1"	—	30-1037-00	.60
Straight	1-1/8"	—	30-1525-000	.50
Straight	1-1/4"	—	30-0114-000	.50
Straight	1-1/4"/Double D	—	42-0440-00	.55
Straight	1 5/16"	—	30-1813-00	.50
Straight	1 1/2"	—	30-1527-000	.50
Straight	1 5/8"	—	30-1075-00	.60
Straight	1 3/4"	—	30-1528-000	.60
Straight	2 1/4"	—	30-1035-00	.60
Straight	2 1/2"	—	30-3803-40	.60
Offset	1-1/8"	1/8"	30-1110-00	.50
Offset	1-1/8"	3/8"	30-1021-00	.65
Offset	1-1/4"	1/4"	30-1111-00	.65
Offset	1-1/2"	1/4"	30-1536-000	.50
Offset	1-1/2"	1/2"	30-1117-00	.65
Offset	1 5/8"	1/4"	30-3803-00	.50
Offset	2"	1/4"	30-3804-00	.75

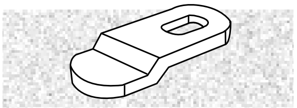
DUO LOCK CAMS



Type	Length	Offset	Part Number	Price per ea.
Straight	1"	—	30-1191-100	.66
Straight	1-1/4"	—	30-1192-1250	.70
Straight	1-1/2"	—	30-1440-00	.55
Straight	1-3/4"	—	30-1192-1750	.76
Offset in	1-1/8"	5/16"	30-1195-11250S	1.04
Offset in	1-1/4"	1/8"	30-1198-1250S	.99
Offset in	1-1/4"	1/4"	30-1870-00	.95
Offset out	1-1/4"	1/4"	30-1871-1250S	1.04

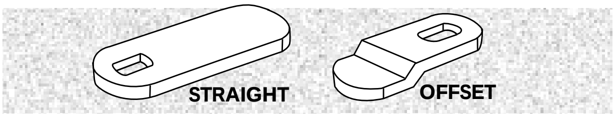
SPECIAL OFFSET CAM

- 90 degree stop
- Used on National Cigarette Machines



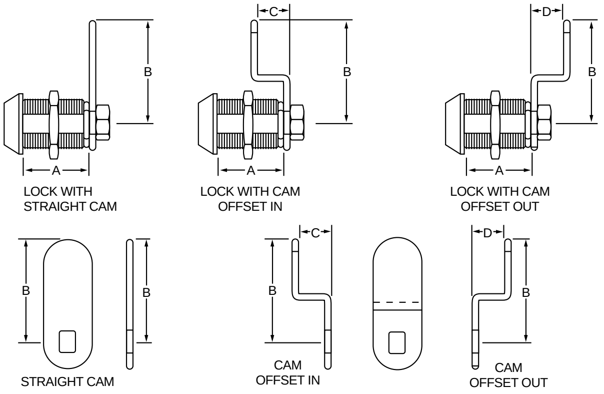
Part Number		Price per each
30-1022-00	90 Degree Offset Cam	.40

FORT LOCK CAMS



Type	Length	Offset	Part Number	Price per ea.
Straight	1-1/4"	—	30-1864-00	.50
Straight	1-5/16" (Double D)	—	30-1880-00	.50
Straight	1-1/2"	—	30-4901-60	.50
Straight	1-3/4"	—	30-1866-00	.50
Straight	2"	—	30-1867-00	.50
Offset	1"	1/4"	30-1534-000	.50
Offset	1-1/2"	1/4"	30-1112-00	.60
Offset	1-1/2"	3/8"	30-1113-00	.60

HOW TO MEASURE CAMS AND CAM LOCKS

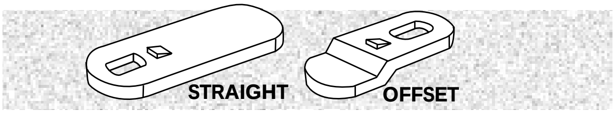


A dimension is the cylinder length. Measure from the back of the lock head to the front of the cam.

B dimension is the cam length. Measure from center of cam hole to tip of cam.

C or **D** dimension is the cam offset.

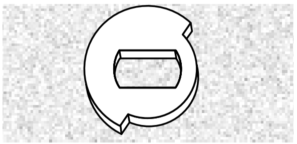
THRIFTY LOCK CAMS



Type	Length	Offset	Part Number	Price per ea.
Straight	1-1/2"	—	30-1527-500	.45
Offset	1-1/8"	1/4"	30-2227-00	.50
Offset	1-3/8"	1/4"	30-2227-01	.50
Offset	1-1/2"	1/4"	30-2227-02	.75

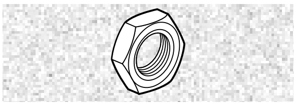
90 DEGREE CAM STOP FOR ACE LOCKS

- Stops the key in the 90 degree position
- Key is removable only in the locked position
- Minimum order 12



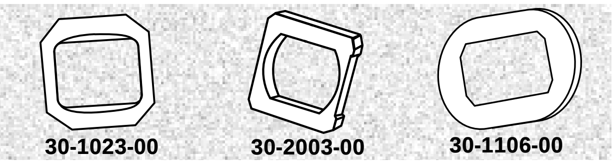
Part Number		Price per each
30-1802-00	Stop Cam, 90 Degree turn	.40

GEM-GEMATIC CAM NUT



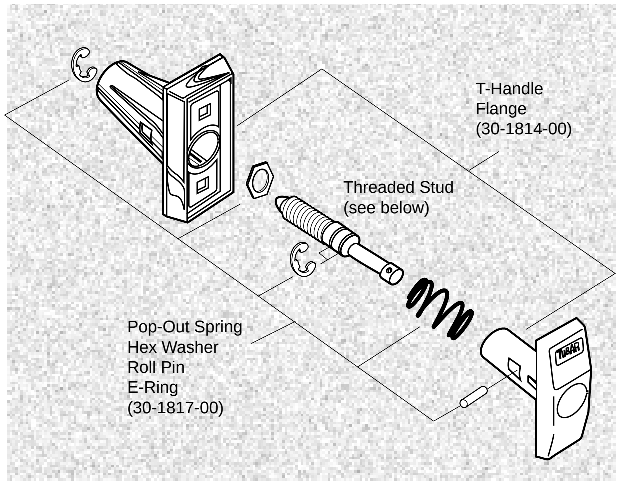
Part Number		Price per each
30-2287-00	Gem-Gematic Cam Nut	.10

LOCK CAM ADAPTERS



Part Number		Price per each
30-1023-00	Cam Lock Adapter converts Duo cam to Ace, Abloy, Gem, or Medeco	.35
30-1106-00	Cam Lock Adapter converts Chicago cam to Ace, Abloy, Gem, or Medeco	.35
30-2003-00	Cam Lock Adapter converts Fort Cam to Ace, Abloy, Gem, or Medeco	.35

T-HANDLE KITS



- Inner Cyliner remains at or below the surface of the handle, making vandalism difficult.
- Accepts all standard Abloy, Ace, Ace Change-Matic, Flex-Ace, Duo, Gem, Medico and Happ Controls standard inner cylinder locks.
- To assemble a complete T-Handle, order parts #1, #2 and your choice of #3.

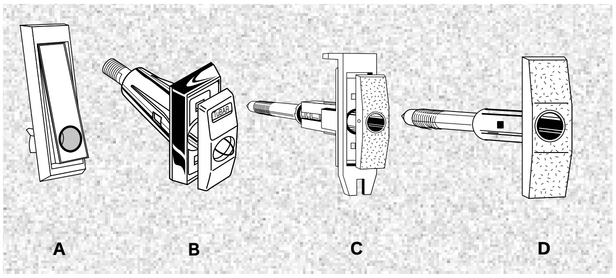
Kit #1	Part Number	Price per ea.
Includes: T-Flange, T-Handle	30-1814-00	8.99
Kit #2, T-Handle Parts Kit		
Includes: E-Ring, Pop-Out Spring Hex Washer, Roll Pin	30-1817-00	1.50

Kit #3, Choose witch threaded stud fits your application

Overall Length	Thread Length	Equipment Used On	Part Number	Price per ea.	Price L/6	Price L/12
2 31/32"	1 3/16"	Cavalier	30-1824-00	4.99	4.49	4.39
3 31/32"	1 3/16"	Rowe	30-1830-00	4.99	4.49	4.39
6 17/32"	2 1/2"	Choice Vend Dixie Narco	30-1833-00	4.99	4.49	4.39

T-HANDLE ASSEMBLIES

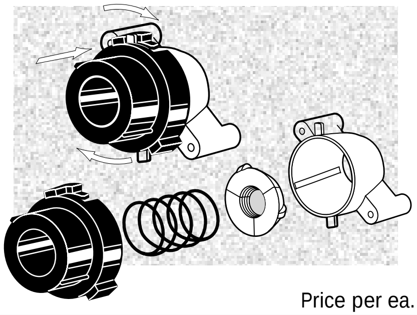
- These T-Handle assemblies come complete with hardware
- Simply add inner cylinder lock



Part Number	Key #	Manufacturer	Price per ea.
H640089AP	A	Automatic Products	49.75
H227CCM	B	Coffe Mat	12.95
H80150287001DN	C	Dixie Narco	10.79
H80150304001DN	D	Dixie Narco	12.00
H227RM	B	R.M.I.	10.95
H227JRO	B	Rock-Ola	23.05
H35027808R	B	Rowe, Bill Changer	51.00
H4791920R	B	Rowe	19.95

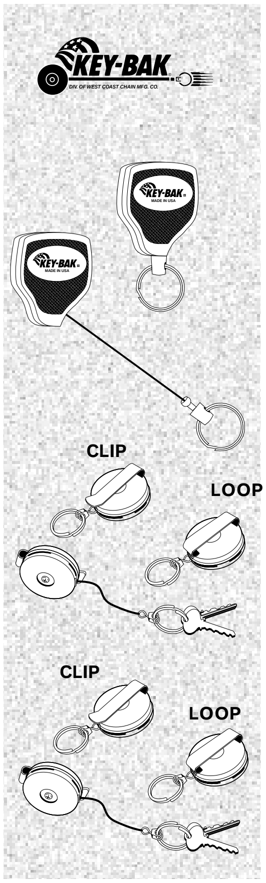
SLAM NUT ASSEMBLY

- Terrific time and labor saving device
- Allows you to simply ‘slam’ the T-Handle in after closing the door.
- Elliminates screwing the T-Handle into the cage nut.



Part Number		Price per ea.
30-0120-00	Slam Nut Assembly	9.95

KEY-BAK KEY REELS


KEY-BAK
DIV. OF WEST COAST CHAIN MFG. CO.
CLIP
LOOP
CLIP
LOOP

KEY-BAK SUPER 48 NEW

- Polycarbonate high strength case
- Dust shield keeps interior clean
- Stainless steel cable with tough nylon jacket is stronger but lighter than chain and is smooth in action
- Clip/Loop attachment allows dual functionality
- Clip design similar to pistol holsters; meets penal “anti-snatch” rules
- Carries up to 5 times the weight of other retractors
- All black design, high-tech look
- Oversize split ring is standard for larger load
- Corrosion proof for long life

KEY-BAK WITH CHAIN

- Clips-On style or belt loop style
- Chrome case
- 24" stainless steel chain
- Swivels to prevent chain twisting

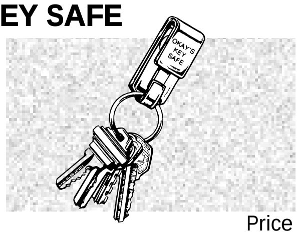
KEY-BAK WITH CABLE

- Rugged steel case is only 2” dia.
- 48” stainless steel cable with 95 lb. breaking strength
- Cable is 7x7 strand nylon jacketed construction
- Belt look or Clip mount style available

Part Number		Price per each	
30-0101-01	Super 48	11.99	10.99(12+)
30-1951-00	Clip on Style with Chain	7.99	7.09 (6+)
30-0104-00	Belt Loop Style with Chain	7.95	7.09 (6+)
30-0101-00	Clip on Style with Cable	12.99	11.99 (6+)
30-0102-00	Belt Loop Style with Cable	12.99	11.99 (6+)

OKAY’S KEY SAFE

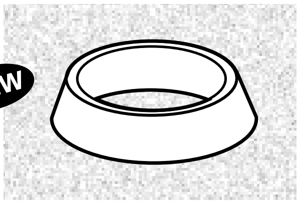
- Ideal for slot mechanics, locksmiths, security people, etc.
- Very secure belt loop style with key ring
- Handy and convenient
- Eliminates pocket wear



Part Number		Price
30-0095-00	Okay’s Key Safe	3.66

SECURITY RINGS

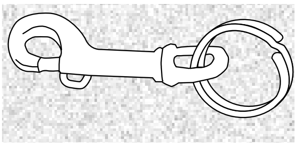
- For extra security on cam type locks
- Uses 1/16" space



Part Number	Depth	Price per ea.
30-0086-00	5/16"	2.95
30-0087-00	7/16"	3.10

SNAP HOOK KEY RING

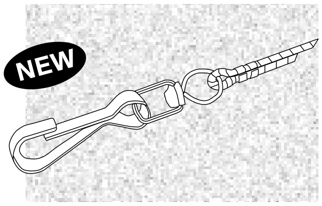
- Heavy-duty steel
- Chrome finish



Part Number		Price per ea.
30-0096-00	Snap Hook Key Ring	3.99

SWIVEL EYE ROPE FOR KEY CHAINS

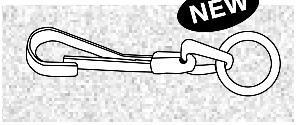
- 3-3/4" long
- Heavy-duty construction



Part Number		Price per ea.
30-0093-00	Swivel Eye Rope For Key Chains	2.49

SPRING SNAP FOR KEYS

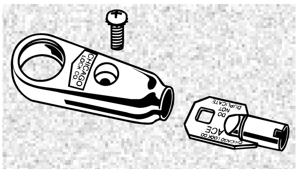
- Swivels for easy use
- Zinc plated
- 4-3/8" Overall length, 3/4" wide



Part Number		Price per ea.
30-0097-00	Spring Snap For Keys	1.05

TUBULAR KEY HOLDER

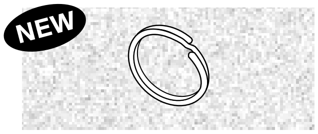
- Supports and strengthens key to eliminate breakage
- Allows for easier and faster opening of locks
- Fastened with an 8-32 screw included with holder



Part Number		Price per ea.	L/12
30-104900	Tubular Key Holder	9.25	8.50

CHROME KEY RINGS

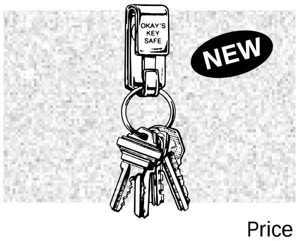
- Quality chrome finish
- Various sizes available



Part Number	I.D.	Price per ea.
30-0094-00	1-1/8"	.49
30-0099-00	1-1/2"	.55
30-0100-00	1-3/4"	.59

OKAY'S KEY SAFE

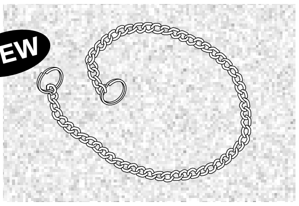
- Ideal for slot mechanics, locksmiths, security people, etc.
- Very secure belt loop style with key ring
- Handy and convenient
- Eliminates pocket wear



Part Number		Price
30-0095-00	Okay's Key Safe	3.66

HEAVY-DUTY CHOKER CHAINS

- 24" long
- 12 per master carton

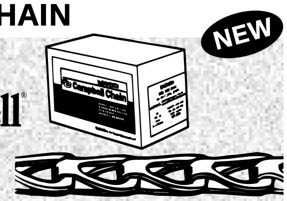


Part Number		Price per ea.
30-0083-00	Heavy-Duty Choker Chains	5.95

SASH CHAIN

- Great for key chains
- Trade size #22
- Sold per foot
- 100 ft. per box

Campbell®

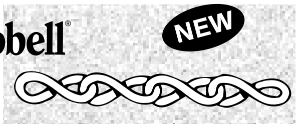


Part Number	Type	Price per ft
30-0092-00	Blue Chrome	2.99
30-0091-00	Bronze	2.01

JACK CHAIN

- Great for key chains
- #10 brass chain
- Sold per foot
- 100 ft. per box

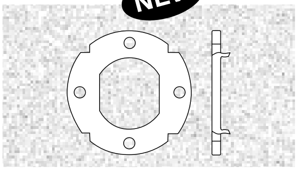
Campbell®



Part Number		Price per ft.
30-0090-00	Jack Chain	1.00

SPUR WASHER

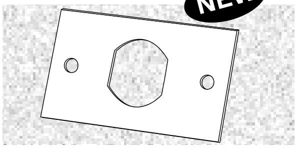
- Prevents the cam assembly from turning when installed in a round hole
- Four (4) 3/16" diameter holes
- Minimum order 10 pcs.
- For wood installation



Part Number		Price per ea.
30-1966-00	Spur Washer for wood installation	.45

ANCHOR PLATES

- Prevents cam assembly from turning when installed in a round hole
- For metal or wood installation
- Minimum order 10 pcs

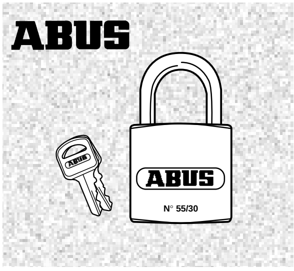


Part Number		Price per ea.
30-1965-00	2-3/16 L x 1-1/4W x 3/32" Thick - .640 Hole	.90
30-1964-00	2-5/32 L x 1-1/4W x .050" Thick - .645 Hole	.99

PADLOCKS

"ABUS" PADLOCK

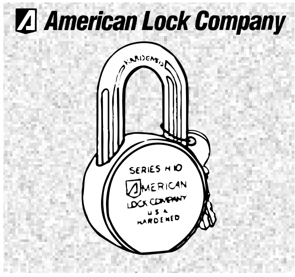
- Smaller sized, keyed alike padlock for use in low security areas where there is still a need to lock up.
- 1" x 1 1/8" x 1/2" brass case
- 3/8" case hardened shackle
- 1/2" shackle clearance
- Keyed Alike, 2 keys per lock


ABUS
ABUS
N° 55/30

Part Number		Price per ea.	12+
30-1560-00	House "Abus Padlock" Keyed Alike	5.99	4.99

"AMERICAN" PROFESSIONAL H-10 PADLOCK

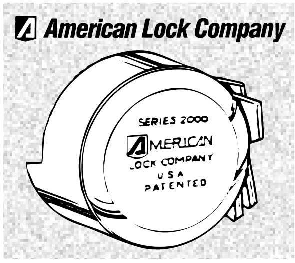
- Solid steel body (hardened)
- Case hardened steel shackle
- Case diameter: 2"
- Shackle clearance: 1 1/16"
- Overall Height: 3 1/2"
- Shackle diameter: 7/16"
- Keyed Alike, 2 keys per lock


American Lock Company
HARDENED
SERIES H10
AMERICAN LOCK COMPANY
U.S.A.
HARDENED

Part Number		Price 1-11	12+
30-1000-XXX	Professional H-10 Padlock	18.95	16.95

"AMERICAN" SERIES 2000 PUCK LOCK

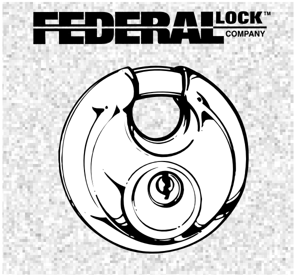
- "The Locksmith's Lock"
- Patented shackleless body with solid one piece chrome finish case
- Maximum security 6 pin tumbler cylinder
- 1 1/2" thick by 2 7/8" dia. case
- 13/32" steel locking rod
- Keyed Alike, 2 keys per lock


American Lock Company
SERIES 2000
AMERICAN
LOCK COMPANY
U S A
PATENTED

Part Number		Keying	Price 1-11	12+
30-1016-XXX	Series 2000 Puck Lock	Alike	23.99	22.49
30-1015-KD	Series 2000 Puck Lock	Different	23.49	21.99

"FEDERAL" 1000 SERIES PADLOCK

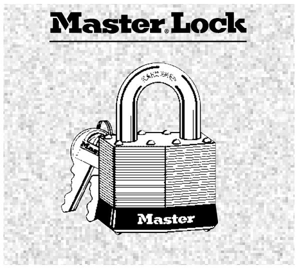
- Hardened steel shackle
- Stainless steel lock body
- 4 pin tumbler
- Protected shackle
- Brass cylinder
- Deadbolt double locks
- 3/8" shackle diameter


FEDERAL LOCK™ COMPANY

Part Number		Price per ea.	L/6
30-2327-XXX	1000 Series Padlock Keyed Alike	11.79	11.29

MASTER LOCK #1 PADLOCK

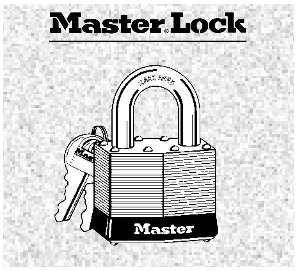
- Reinforced 1 3/4" wide laminated steel body
- Hardened 5/16" diameter steel shackle
- 7/8" shackle clearance
- Precision 4-pin tumbler cylinder
- Dual independent locking levers
- Rustproofed for external wear
- 2 keys furnished per lock


Master Lock
HARDENED
Master

Part Number		Price per 1-11	12+
30-1210-XXX	Master #1, Keyed Alike	9.79	9.29
30-1209-000	Master #1, Keyed Different	9.69	9.19

MASTER LOCK #3 PADLOCK

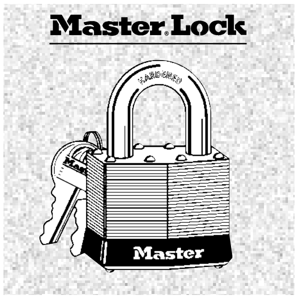
- Reinforced 1 1/2" wide laminated steel body
- Hardened 9/32" diameter steel shackle, 3/4" clearance
- Precision 4-pin tumbler cylinder
- Dual independent locking levers
- Cadium Rustproofed for external wear
- 2 keys furnished per lock


Master Lock
HARDENED
Master

Part Number		Price per 1-11	12+
30-1208-XXX	Master #3, Keyed Alike	8.19	7.69
30-1207-000	Master #3, Keyed Different	8.09	7.59

MASTER LOCK #5 PADLOCK

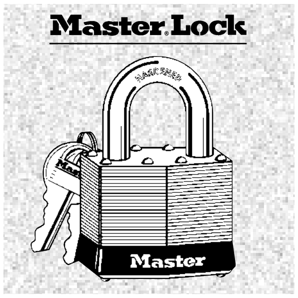
- Reinforced 2" wide laminated steel body
- Hardened 3/8" diameter steel shackle
- 1" shackle clearance
- Precision 4-pin tumbler cylinder
- Dual independent locking levers
- Rustproofed for external wear
- 2 keys furnished per lock


Master Lock
HARDENED
Master

Part Number		Price per 1-11	12+
30-1212-XXX	Master #5, Keyed Alike	11.39	10.89
30-1211-000	Master #5, Keyed Different	11.29	10.79

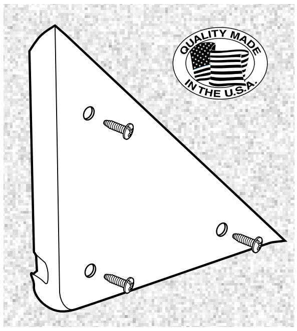
MASTER LOCK #7 PADLOCK

- Strong 1 1/8" wide laminated steel case
- 3/16" shackle, 9/16" clearance
- Precision pin tumbler locking mechanism
- Cadium rustproofed for external wear
- 2 keys furnished per lock


Master Lock
HARDENED
Master

Part Number		Price per 1-11	12+
30-1206-XXX	Master #7, Keyed Alike	6.59	6.09
30-1205-000	Master #7, Keyed Different	6.48	5.99

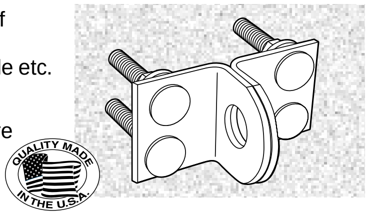
CABINET CORNER PROTECTOR


QUALITY MADE IN THE U.S.A.

- Sturdy steel reinforcement plate keeps pressed wood from coming apart when moving
- Also used in the repair of cabinets
- Round corners protect walls, games etc. from damage when moving machine
- Round corners make moving the cabinet easier. Slides over uneven cracks, bumps etc.
- Complete with hardware

Part Number		Price per ea.
49-0570-00	Cabinet Corner Protector	4.25

LOCK HASP


QUALITY MADE IN THE U.S.A.

- Simple, economic way of adding a padlock to any machines, garage, vehicle etc.
- Made with 1/8" steel
- Complete with hardware

Part Number		Price per ea.
30-1194-000	Lock Hasp	4.75

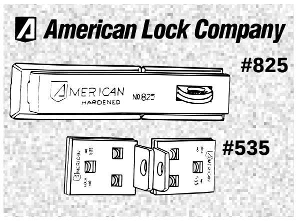
SECURITY ALARM SYSTEM

IDAS
WARNING
This Unit Monitored By
IDAS
INTRUSION SECURITY ALARM

- Impact sensor designed to sound alarm when impact, abuse and rocking is detected
- Sensor adjusts to desired sensitivity
- 128 db alarm sounds for 30 seconds
- Automatically turns off and resets
- Amusement alarm has 2 magnetic switches
- Vending alarm has 1 magnetic switch
- Wide voltage range (5 to 15 vdc)
- Low current drain (0.1 UA @ 12 vdc)
- 12 volt battery pack, with connectors
- Small controller size, only 1.85” x 2.25”
- Easy to install

Part Number		Price per ea.
27-1064-10	Amusement Machine Alarm	94.95
27-1064-00	Vending Machine Alarm	94.95

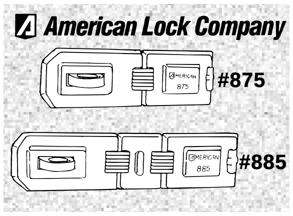
CASE HARDENED SOLID STEEL HASPS


American Lock Company
#825
AMERICAN HARDENED No825
#535

- Solid steel materials
- Recessed concealed screws
- All mounting hardware included

Part Number		Price per 1-11	12+
30-1185-00	#825 Straight Bar Hasp	5.49	5.39
30-1186-000	#535 Centered Hole Hasp	6.99	6.89

FLEX-O-HASP


American Lock Company
#875
#885

- Heavy wrought steel
- Multi purpose
- Top security

Part Number		Price per 1-11	12+
30-1188-000	#875 Single Link Hasp	6.49	6.29
30-1189-000	#885 Double Link Hasp	6.99	6.89

Visit Our Web Site:

happcontrols.com

for ***NEW***
Product Updates!!

HAPP
VISIT OUR WEBSITE

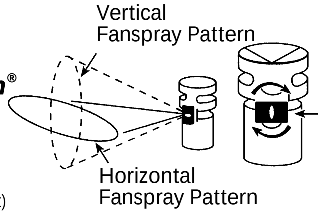
HAPP CONTROLS "QUALITY COAT" SPRAY PAINT

- Featuring the patented EZ Touch® Fanspray® Nozzle giving the user better spray control with optimum coverage
- 15 minutes dries to touch
- For indoor/outdoor use
- Contains high amounts of solids for maximum coverage on wood and metal
- Lead and fluorocarbon free
- Professional results with the patented Fanspray® Nozzle
- Vertical or horizontal Fanspray® pattern allows easy spraying of all surfaces
- Net weight 11 oz.
- 12 cans per case

Happ Controls
Quality Coat
QUICK DRY SPRAY ENAMEL for METAL or WOOD
Gloss Black
Indoor/Outdoor
#29-1011-00
Patentend FANSPRAY® Valve Provides More Coverage and Spray Control
Weather and Rust Resistance
DANGER–EXTREMELY FLAMMABLE–CONTENTS UNDER PRESSURE. KEEP FROM HEAT OR FLAME–VAPOR HARMFUL–HARMFUL OR FATAL IF SWALLOWED.
NET WEIGHT 11 oz. (312 gms.)

Part Number		Price per ea. 1-11	12+
29-1011-00	Gloss Black	3.49	2.49
29-1012-00	Semi-Gloss Black	3.49	2.49
29-1025-00	Gray Primer	3.49	2.49
29-1026-00	Appliance White	3.49	2.49
29-1027-00	Walnut Brown	3.49	2.49
29-1028-00	Vintage Brown	3.49	2.49
29-1029-00	Dark Brown	3.49	2.49

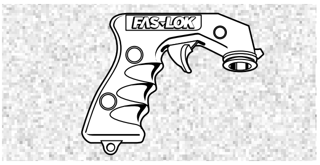
All Spray Paints use the EZ Touch® Fanspray® Nozzle.


Vertical Fanspray Pattern
Rotate valve nozzle 1/4 turn to change spray pattern
Horizontal Fanspray Pattern

(Except Spatter Paint)

SNAP & SPRAY AEROSOL CAN HOLDER

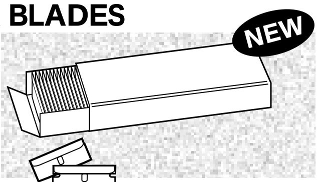
- Transforms any spray can into a spray gun
- Installs easily
- Eliminates finger fatigue
- Reusable



Part Number		Price per ea. 1-11	12+
29-1110-00	Snap & Spray Aerosol Can Holder	2.10	1.93

RAZOR BLADES

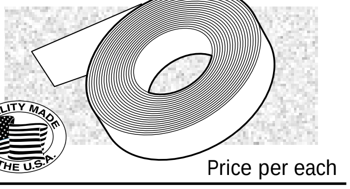
- Single edge
- Industrial quality
- Sold 100 per box



Part Number		Price per each
49-0926-00	Razor Blades	8.99

MASKING TAPE

- Protect the areas your not painting
- 60 yards long per roll
- Strong adhesive backing



QUALITY MADE IN THE U.S.A.

Part Number		Price per each
39-0014-00	1" Masking Tape	2.49
39-0018-00	2" Masking Tape	3.99

SPRAY PAINT, BY KRYLON

- Featuring the patented EZ Touch® Fanspray® Nozzle
- Dries to touch in approximately 15 minutes
- For professional and industrial use
- Interior/Exterior use
- Net wt. 12 oz.,12 per case

KRYLON
INDUSTRIAL
TOUGH COAT
Acrylic Enamel

Part Number		Price per ea. 1-11	12+
29-1013-01	Semi-Flat Black	3.49	3.29
29-1013-02	Gloss Black	3.49	3.29
29-1013-03	Appliance White	3.49	3.29
29-1086-00	Flat White	3.49	3.29
29-1013-04	Flat Black	3.49	3.29
29-1013-10C	Coke Red	3.49	3.29
29-1013-19	Machinery Gray	3.49	3.29
29-1013-20	Aluminum	3.49	3.29
29-1015-00	Gray Primer	3.49	3.29
29-1073-00	Red Oxide Primer	3.49	3.29
29-1166-00	Gold	3.49	3.29
29-1070-00	Cordova Brown	3.49	3.29
29-1013-05	Almond	4.99	4.79
29-1081-00	Light Beige	3.49	3.29

"SPATTER" PAINT, BY KRYLON

- Add beauty to your used machines with this extra touch of class
- Attractive machines attract more customers
- Reduces and hides graffiti
- Interior use only
- Net wt. 11 oz.,12 per case

Dupli-Color
Spatter Paint

Part Number		Price per ea. 1-11	12+
29-1022-BA	Spatter Paint – Black / Aqua	5.99	5.49
29-1022-BG	Spatter Paint – Black / Gray	5.99	5.49
29-1022-GW	Spatter Paint – Gray / White	5.99	5.49

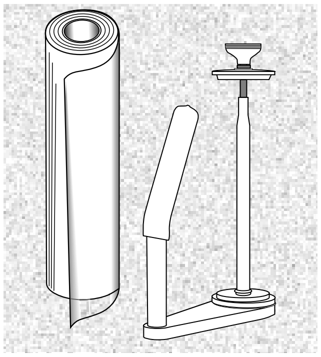
STRETCH-WRAP FILM & DISPENSER

FILM

- Protects shipments
- Thick 80 gauge film
- 18" x 1500 ft., 3" core
- 4 rolls per case

DISPENSER

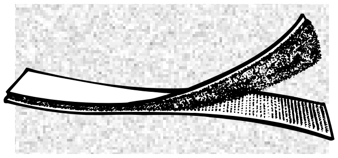
- High strength and high quality - built to last
- Adjusts to 12", 15" and 18" widths, 3" core
- Foam handle is angled to reduce fatigue
- Top tension control to keep stretch constant
- Weighs only 3½ lbs



Part Number		Price per each	4+
39-0036-00	Heavy Duty Stretch-Wrap Film	16.95	15.50
39-0037-00	Stretch Film Dispenser	79.95	-

VELCRO® FASTENING TAPES

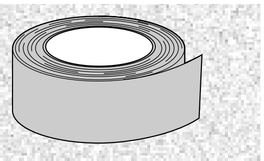
- For fastening a wide variety of items
- 1" wide, black color
- Pressure sensitive adhesive
- Operating temperature: 0º F to 225º F
- Sold by the foot, 75 ft. per roll



Part Number		Price per ft.
90-0003-00	Velcro Loop Only Tape	1.05
90-0004-00	Velcro Hook Only Tape	1.05

DUCT TAPE

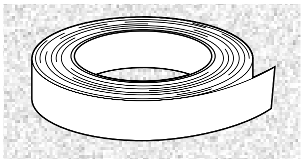
- Heavy duty gray duct tape seals all types of ductwork
- Strong adhesive backing
- 2" x 60 yards long



Part Number		Price per each
39-0019-00	Duct Tape	5.99

GLASS FILAMENT TAPE

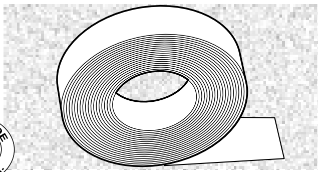
- Ideal for heavy-duty packaging
- Strong adhesive backing
- 1" x 60 yards long



Part Number		Price per each
39-0007-00	Glass Filament Tape	4.99

DOUBLE FACE FOAM TAPE

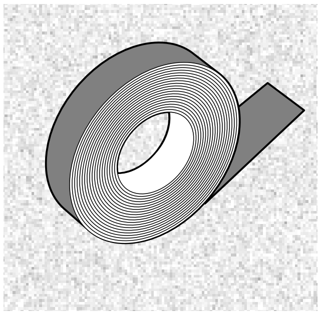
- All purpose tape allows you to hang light objects or signs to games, walls, glass
- High strength adhesive on both sides
- 36 yards long



Part Number		Price per each
39-0013-00	3/4" Double Sided Foam Tape, White	18.90
39-0041-00	1/4" Double Sided Foam Tape, Black	17.99

COLD SHRINK TAPE

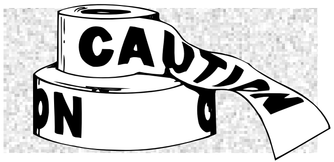
- Amazing tape allows you to wrap around a leaking pipe, hose, cable, etc. and the tape will form into a rubber mold stopping any more water from escaping
- Removing is easy, just slit the tape mold lengthwise
- No heat required
- Waterproof and non-toxic
- A must for every toolbox
- 3/4" x 30' long



Part Number		Price per each
39-0012-00	Cold Shrink Tape	7.99

CAUTION SAFETY TAPE

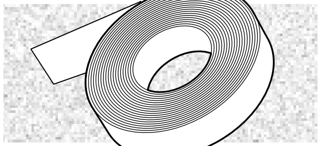
- Non-pressure sensitive vinyl barricade tape
- High visibility
- 3" W x 500 ft.
- 8 per case



Part Number		Price per ea	8+
27-1224-00	Caution Safety Tape	12.99	9.99

MASKING TAPE

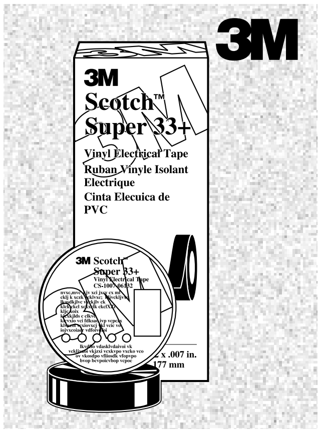
- Protect the areas your not painting
- 60 yards long per roll
- Strong adhesive backing



Part Number		Price per each
39-0014-00	1" Masking Tape	2.49
39-0018-00	2" Masking Tape	3.99

3M™ ELECTRICAL TAPE

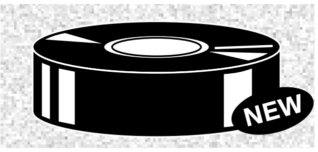
- 3M Scotch Super 33+ Vinyl Electrical Tape, the Industry Standard
- Now it's more flexible, stronger and stickier than ever – especially in cold weather
- Highly conformable all-weather tape
- UL listed, CSA certified 0° C to 105° C
- Primary insulation for wire cable splices up to 600 V
- In handy hard plastic container
- 3/4" x 66' long



Part Number		Price per ea	10+
49-0902-00	3M Electrical Tape	4.75	4.25

PLASTIC ELECTRICAL TAPE

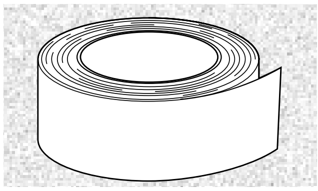
- Dielectric over 10,000 V
- U.L. listed
- 3/4" W x 60 ft.
- sold in packs of 10 only



Part Number		Price per each
39-0038-00	Plastic Electrical Tape-10 pack	12.99

POLYPROPYLENE PACKAGING TAPE

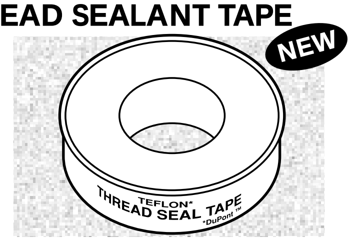
- Clear
- 2" x 55 yards long per roll
- Strong adhesive backing
- Made in the U.S.A.



Part Number		Price per each	12+	24+
39-0008-00	Polypropylene Packaging Tape	1.49	1.35	1.19

TEFLON PIPETHREAD SEALANT TAPE

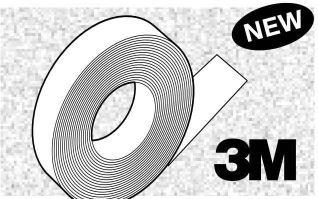
- White Teflon seals and lubricants pipe threads
- 1/2" x 520"



Part Number		Price per each	L/12
39-0032-00	Teflon Pipethread Sealant Tape	1.49	$1.29

3M™ CLEAR DOUBLE SIDED TAPE

- All purpose tape with excellent adhesion
- Easily adheres to metal, glass, formica and other hard surfaces



Part Number		Price per each
39-0039-00	3M Clear Double Sided Tape, 1/4" x 36 yds.	12.99
39-0040-00	3M Clear Double Sided Tape, 1/2" x 36 yds.	12.99

HAPP CONTROLS GLASS CLEANER

- Best glass cleaner in the industry
- Fast & effective foam spray
- Non-streaking
- Non-ammoniated
- Safely used on glass, touchscreens, chrome, plastic, enamel & tile
- **Large 20 oz. size**
- 12 per case

Happ Controls
Glass Cleaner
INDUSTRIAL STRENGTH NON-STREAKING FORMULA
#29-1018-00
• Fast, Effective Foam Spray
• Use on Glass, Chrome, Plastic, Enamel and Tile
• Non-Ammoniated
• Non-Streaking
CAUTION

Part Number		Price per ea.	12+
29-1018-00	Happ Controls Glass Cleaner	2.99	2.49

SCOTT WYPALL® GRAB-A-RAG™ TOWELS

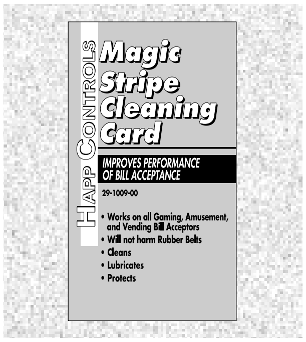
- Convenient, strong and reusable
- Low cost, high quality
- Virtually lint free
- Monitor usage with ease
- Durable box to protect from dirt and water
- Non-abrasive material
- Made in the U.S.A.
- 64 per box, 12 boxes/case

SCOTT
WypAll
America's all-purpose wiper!
Grab-A-Rag
64

Part Number		Price per ea.	12+
27-1008-00	Grab-A-Rag™ Towels	5.49	4.99

HAPP CONTROLS DOLLAR BILL CLEANING CARD

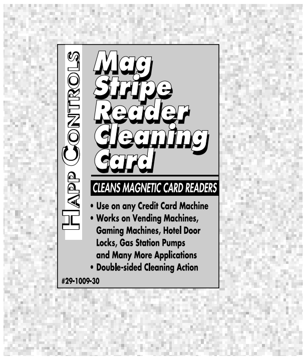
- To clean, just insert like a dollar bill
- Works on all Gaming, Amusement and Vending bill validators
- Greatly increases the acceptance of dollar bills by cleaning & maintaining the hard to reach insides of the bill validators
- Special cleaning solution will not harm rubber belts
- Cleans, lubricates and protects all in one easy motion


Happ Controls
Magic Stripe Cleaning Card
IMPROVES PERFORMANCE OF BILL ACCEPTANCE
29-1009-00
• Works on all Gaming, Amusement, and Vending Bill Acceptors
• Will not harm Rubber Belts
• Cleans
• Lubricates
• Protects

Part Number		Price per ea.	50+
29-1009-00	Happ Controls Dollar Bill Cleaning Card	.79	.69

MAG STRIPE READER CLEANING CARD

- Helps performance and durability of your equipment
- Used regularly, they will save you time & money in equipment repairs & downtime
- Cleans dirt, oil and residue from magnetic, optical and bar code reading equipment
- Double-sided cleaning card cleans any way you swipe
- Works on ATM's, Hotel Door Locks, Video Vending Machines, Telephones, Gas Pump Credit Card Readers, and many more applications


Happ Controls
Mag Stripe Reader Cleaning Card
CLEANS MAGNETIC CARD READERS
• Use on any Credit Card Machine
• Works on Vending Machines, Gaming Machines, Hotel Door Locks, Gas Station Pumps and Many More Applications
• Double-sided Cleaning Action
#29-1009-30

Part Number		Price per ea.	50+
29-1009-30	Mag Stripe Reader Cleaning Card	.89	.79

HAPP CONTROLS ALL-PURPOSE CLEANER

- Completely cleans all types of surfaces including: formica, playfields, wood, metal and glass
- Removes marks from pool balls, bowling pins and shuffle alley board
- 18 oz. aerosol can makes cleaning easy, simply spray on and wipe off
- 12 per case

Happ Controls
All-Purpose Cleaner
INDUSTRIAL STRENGTH
29-1000-00
• Fast
• Foaming Action
• Non-Flammable
CAUTION

Part Number		Price per ea.	1-11	12+
29-1000-00	Happ Controls All-Purpose Cleaner		3.29	2.89

HAPP CONTROLS VANDAL MARK REMOVER

- Excellent for removing graffiti
- Removes spray paint, crayon, scuff marks and most inks
- Safe for use on brick, steel, brass, vinyl and most other surfaces
- Net weight 16 oz.
- 12 cans per case

Happ Controls
Vandal Mark Remover
IDEAL FOR REMOVING GRAFFITI
29-1016-00
Removes:
• Crayon Markings
• Ball Point Pen Ink
• Marking Pen Ink
• Aerosol Spray Paints
• Magic Marker
• Road Tar
• Scuff Marks
DANGER

Part Number		Price per ea.	12+
29-1016-00	Vandal Mark Remover	4.99	4.49

HAPP CONTROLS SPRAY ADHESIVE

- Pressure sensitive adhesive
- Strong, instant tack
- 20 oz. can
- 12 cans per case

Happ Controls
Spray Adhesive
CAUTION

Part Number		Price per ea.	12+
29-1017-00	Happ Controls Spray Adhesive	5.99	4.99

INSTANT KRAZY GLUE

ALL PURPOSE

- No mixing, no mess
- One drop application
- Ideal for plastic, metal, rubber, glass and ceramic
- Net wt. .07 oz. (2 g)

LEATHER FORMULA

- Specially formulated to bond leather and vinyl
- Ideal for replacing cue tips on pool sticks
- One drop application
- Net wt. .07 oz. (2 g)

INSTANT Krazy GLUE
ALL PURPOSE
INSTANT Krazy GLUE
LEATHER FORMULA
A
B

Part Number		Price per ea.	12+
A 29-1044-00	Instant Krazy Glue - All purpose	1.69	1.49
B 29-1045-00	Instant Krazy Glue Leather Formula	1.69	1.49

3M™ SPRAY ADHESIVE

#74
#76
#77
#90
3M

3M SPRAY ADHESIVE #74

- Quick tack in bonding most materials: cloth, wood, plastics and metal
- 23.25 fl. oz.

3M SPRAY ADHESIVE #76

- Longer tack time – bonding in 10 minutes for a single sprayed surface, 1 hour for two coated surfaces
- Adjustable spray allows varied widths to be sprayed, eliminates spraying of too much adhesive
- 23.5 fluid oz.

3M SPRAY ADHESIVE #77

- Will initially “grab” the material, but allows time to adjust before permanent bonding
- 23 fluid oz.

3M SPRAY ADHESIVE #90

- Exceptionally strong contact adhesive
- One minute dry time
- Adjustable spray tip allows varied widths to be sprayed
- Bonds decorative laminates wood, metal, plastics and many other materials
- 16.6 fluid oz.

Part Number		Price per ea.	12+
29-1006-00	3M Spray Adhesive #74, 12 per case	9.99	8.99
29-1007-00	3M Spray Adhesive #76, 12 per case	8.99	7.99
29-1008-00	3M Spray Adhesive #77, 12 per case	8.49	7.59
29-1069-00	3M Spray Adhesive #90, 12 per case	13.45	11.49

3M FASTBOND 10 CONTACT ADHESIVE

Fastbond
3M
10 Neutral Brushable
Contact Adhesive

- Great solvent based adhesive
- Bonds to a wide variety of materials including many metals
- Fast drying - typically in five to ten minutes
- Moisture resistant
- Sold in one quart cans (32 oz.)
- Apply with brush, sold separately

Part Number		Price per ea.
29-1068-00	3M Fastbond 10 Contact Adhesive	16.20
89-0223-00	1" Brush	1.79
89-0222-00	2" Brush	1.99

BARGE CEMENT

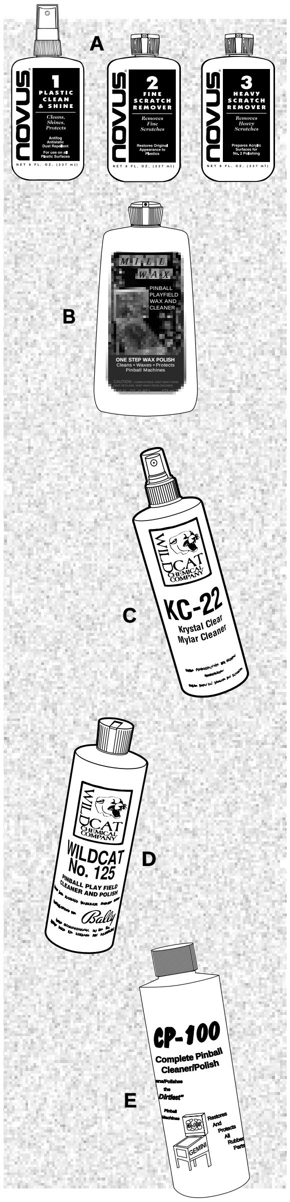
BARGE
ORIGINAL
All Purpose
CEMENT
BARGE
All Purpose CEMENT

- Great for recovering of pool tables
- Bonds clean, dry surfaces
- Bonds many times stronger than the strength of items being glued

Barge Cement in the **quart** size container is considered a “hazardous material!” There will be an additional $9.00 shipping charge added on **per box!** Order 1 can, $9.00 will be added. Order 1 case of 12, $9.00 will be added. Order 2 cases, $18.00 will be added.

Part Number		Price per ea.	12+
29-1024-00	Barge Cement, 2 oz. Tube	3.99	2.99
29-1047-00	Barge Cement, Quart	19.79	17.79

PLAYFIELD CLEANERS & POLISHES


A
novus 1 PLASTIC CLEAN & SHINE
novus 2 FINE SCRATCH REMOVER
novus 3 HEAVY SCRATCH REMOVER
B
MILLS WAX
ONE STEP WAX POLISH
C
WILDCAT
KC-22
Krystal Clear Mylar Cleaner
D
WILDCAT No. 125
E
CP-100
Complete Pinball Cleaner/Polish

Novus Cleaner & Polish

- Cleans and protects playfield surface for long life
- Special formula removes light to heavy scratches in playfields and plexiglass
- Recommended by major pinball manufacturers

Mills Pinball Playfield Wax & Cleaner

- Excellent one step non-abrasive playfield wax and cleaner
- Great cleaner for rubber rings
- 16 oz. squeeze btl.12 per case

Wildcat KC-22 Krystal Clear Mylar Cleaner

- Non-petroleum based cleaner designed to be specifically used on mylar and other surfaces to achieve a clean, durable protective shine
- Will extend life of mylar playfields
- New style bottle prevents evaporation
- 16 oz. spray mist bottle
- 12 per case

Wildcat #125 Playfield Cleaner & Polish

- Excellent in cleaning pinball playfields
- Excellent for removing and cleaning up wax buildup in vending machines “price tab holders”
- New style bottle prevents evaporation
- 12 per case

Gemini CP-100 playfield Cleaner & Polish

- Excellent for playfields, pool balls, rubber rings, etc.

A NOVUS CLEANER & POLISH		Price per ea.	Price Full Case
25-1328-00	Novus #1, 8 oz. bottle, 24 per case	3.29	3.09
25-1329-00	Novus #2, 8 oz. bottle, 24 per case	4.29	4.09
25-1334-00	Novus #3, 8 oz. bottle, 24 per case	5.29	5.09
25-1330-00	Novus #1, 64 oz. bottle, 12 per case	12.99	11.99
25-1331-00	Novus #2, 64 oz. bottle, 12 per case	21.99	20.99

B MILLS PINBALL PLAYFIELD WAX & CLEANER		Price per ea.	12+
29-1040-00	Mills Pinball Playfield Wax & Cleaner	6.89	6.39

C WILDCAT KC-22 KRYSTAL CLEAR CLEANER		Price per ea.	12+
29-1052-00	Wildcat KC-22 Krystal Clear Mylar Cleaner	8.89	8.39

D WILDCAT #125 PLAYFIELD CLEANER & POLISH		Price per ea.	12+
25-1332-00	Cleaner & Polish (Quart Size)	13.99	13.49
25-1333-00	Cleaner & Polish (Pint size)	7.79	7.29

E GEMINI CP-100 PLAYFIELD CLEANER & POLISH		Price per ea.	
29-1095-00	Cleaner & Polish (16 oz.), case/12	7.95	7.45 L/12
29-1051-00	Cleaner & Polish (8 oz.), case/12	3.49	3.29 L/24

CHEWING GUM AND CANDLE WAX REMOVER

Chewing Gum
&Candle Wax
Remover
DANGER
NET WT 10 OZ (283 g)

- Removes chewing gum and wax from carpeting, games cabinets, floors, walls and upholstery
- Will not attack paint
- Net wt. 10 oz.
- 12 per case

Part Number		Price per ea.	12+
29-1031-00	Chewing Gum & Candle Wax Remover	7.99	7.49

DUST GUN 100 COMPRESSED AIR

100% Ozone Safe!
DustGun
100
Safe, dry all-purpose dust and lint remover.
• NON-FLAMMABLE
• CONTAINS NO ETHER
• ULTRA FILTERED

- A powerful blast of air
- Non-toxic, odor free
- Leaves no residue
- 100% ozone safe
- Non-flammable – contains no ether!
- 12 oz. can with built-in continuously-variable trigger valve and extension nozzle
- 12 per case

Part Number		Price per ea.	12+
29-1139-00	Dust Gun 100	8.99	8.49

OIL EATER CLEANER/DEGREASER

Oil eater
Cleaner
Degreaser
Oil eater
Cleaner
Degreaser

- Low cost, ultra-concentrated cleaner/degreaser removes grease from machines, engines, tools, concrete, etc.
- Excellent for use on scuff marks, carpet cleaning, floor wax remover, counter tops
- **Non-caustic, biodegradable**
- No V.O.C.'s or harmful fumes
- No chlorinated solvents
- USDA authorized
- Can be heated for enhanced cleaning
- Non flammable

Part Number		Price per ea.	Full Case	
29-1155-00	32 oz. Oil Eater with Trigger Spray	5.99	5.49	(L/12)
29-1156-00	1 Gal. Oil Eater Cleaner/Degreaser	17.49	16.49	(L/4)

OIL EATER HAND CLEANER

Oil eater
Hand Cleaner
Limpiador Para Manos
Oil eater
Hand Cleaner
Limpiador Para Manos

- Quickly removes grease, paint, adhesives and more
- 100% petroleum free
- Biodegradable
- With pumice, natural citrus, lanolin and aloe
- Use with or without water

Part Number		Price per ea.	Full Case	
29-1157-00	15 oz. Oil Eater Hand Cleaner	4.99	4.19	(L/12)
29-1158-00	1 Gal. Oil Eater Hand Cleaner	22.99	21.99	(L/4)

PLASTIC SPRAY BOTTLE

- Trigger Release
- 12 oz. size

HAPP CONTROLS ZOOM SPOUT OILER

HAPP CONTROLS
ZOOM-SPOUT
FINEST ALL-PURPOSE TURBINE OIL
TELESCOPING SPOUT REACHES EVERYWHERE

- The finest all-purpose turbine oil uniquely packaged to reach those hard to get to areas
- Telescoping spout extends out of the bottle up to 14" long
- A must for every toolbox
- Withstands high temperatures
- Net wt. 4 fl. oz., 72 per case

Part Number		Price per ea.	12+
29-1033-00	Happ Controls Zoom Spout Oiler	1.89	1.39

WD-40

WD-40
The Handy Can
WD-40
WD-40
WD-40
INDUSTRIAL SIZE
There's Always Another Use.

- Lubricates – contains no additives that attract dust and dirt
- Cleans – gets under dirt, oil, grease & grime to clean the surface
- Displaces moisture and is a non-conductor of electricity
- Quickly eliminates moisture-induced short circuits
- Penetrates to loosen rust from metal
- Protects with corrosive-resistant ingredients

Part Number		Price per ea.	Case
29-1041-00	WD-40, 2 oz. Aerosol can, 24 per case	2.49	2.19
29-1042-00	WD-40, 11 oz. Aerosol can, 12 per case	4.19	3.69
29-1043-00	WD-40, 16 oz. "Industrial Size" Aerosol can, 12 per case	5.39	4.89

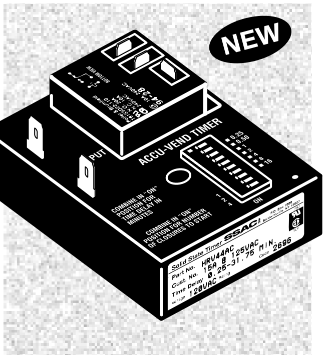
Visit Our Web Site:

happcontrols.com

for ***NEW***
Product Updates!!

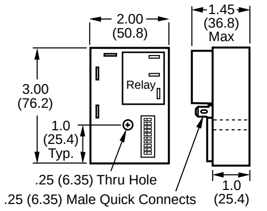
HAPP
VISIT OUR WEBSITE

ACCUMULATING COIN VENDING TIMER

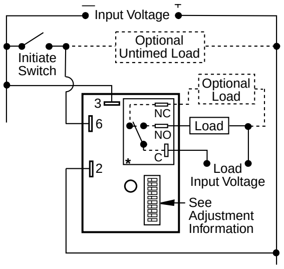

NEW
ACCU-VEND TIMER
Solid State Timer
Part No. HRV44AC
Cust. No.
Time Delay
Voltage 120VAC

- Provides vend time after the selected number of initiate switch closures to start is reached and allows the total vend time to be extended for each additional initiate switch closures
- Accumulates 1 to 256 coins
- Switch selectable 1-7 coins to start
- Vend time from 15 seconds to 31 minutes
- Coin switch can be connected to a counter
- 30 amp, 1 HP @ 125VAC contacts
- 12vdc operation
- UL and CSA approvals

Mounting Dimensions


2.00 (50.8)
1.45 (36.8) Max
3.00 (76.2)
Relay
1.0 (25.4) Typ.
.25 (6.35) Thru Hole
.25 (6.35) Male Quick Connects
1.0 (25.4)

Isolated Output


Input Voltage
Initiate Switch
Optional Untimed Load
Optional Load
3
6
NC
Load
NO
C
2
Load Input Voltage
See Adjustment Information

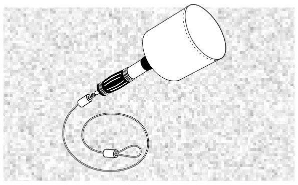
With 30 ampres of switching capacity, it allows direct coin operated control of loads like compressors, pumps, motors, heaters and lighting.

This accumulating coin vending timer will count each closure of the initiate switch. When the total number of initiate switch closures equals the number to start set on the lower 3 DIP switches, the load is energized and the vending time is started. For every initiate switch closure, the accumulating coin vending timer adds one time per coin period, as set on the upper 7 DIP switches, to the total vending time.

Microcomputer accuracy, combined with a power relay, makes the Coin Vending Timer ideal for cost-sensitive single coin or token vending machines.

Part Number		Price per ea.	3+
42-6976-00	Accumulating Coin Vending Timer	135.95	129.95

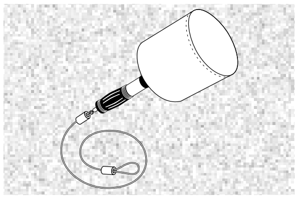
REDEMPTION MALLET



- Rugged construction
- Head Size 5.5" dia. x 5" tall
- Overall length 11 3/4"
- 48" security cable
- Blue cloth color

Part Number		Price per ea.	25+
51-5000-00	Redemption Mallet	45.00	40.00

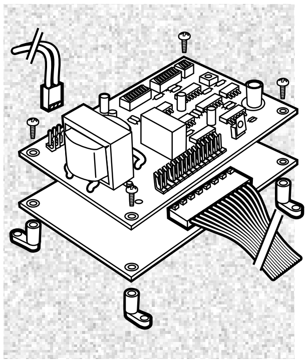
LARGE REDEMPTION MALLET



- Head Size 7" dia. x 6.5" tall
- Overall length 13 3/4" long
- 48" security cable
- Black cloth cover
- Replacement for Whac-A-Mole, Robo-Bop and Circus games

Part Number		Price per ea.	25+
51-5001-00	Large Redemption Mallet	56.00	50.00

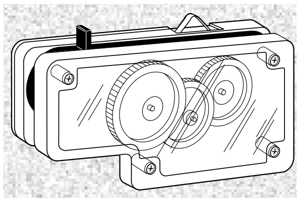
CREDIT ACCUMULATOR/TIMER



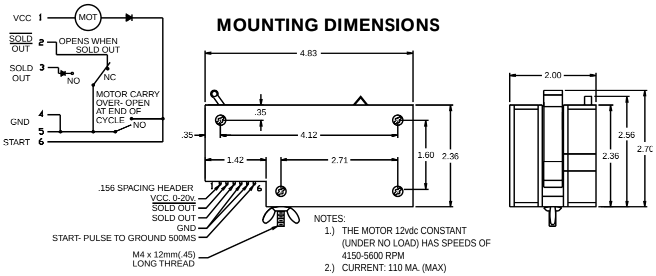
- Accumulates 1 to 16 coin drops before giving pulse credit
- Timer circuit up to 10 minutes
- Single or Dual Vend
- Auto or Manual Vend
- Two Price Vend Option
- Can operate when illuminated "Push to Vend" switch is desired
- 2 pole output relay
- Operates on 120 VAC or 12 VDC
- Supplied with Wiring Harness and Mounting Kit

Part Number		Price per ea.	3+
42-1138-10	Dual Credit Accumulator/Timer	105.00	100.00

VENDING DISPENSER MOTOR



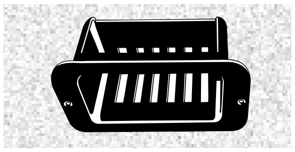
- Used to dispense or vend numerous items
- 12vdc motor
- Overall dimensions: 2"(W) x 4.83"(D) x 2.65"(H)
- Colorful plastic prize boxes also available


VCC 1
MOT
SOLD OUT 2
OPENS WHEN SOLD OUT
SOLD OUT 3
NO
NC
MOTOR CARRY OVER- OPEN AT END OF CYCLE
NO
GND 4
5
START 6
MOUNTING DIMENSIONS
4.83
.35
.35
4.12
1.42
2.71
1.60
2.36
2.00
2.56
2.36
2.70
.156 SPACING HEADER
VCC. 0-20v.
SOLD OUT
SOLD OUT
GND
START- PULSE TO GROUND 500MS
M4 x 12mm(.45) LONG THREAD
1
6

NOTES:
1.) THE MOTOR 12vdc CONSTANT (UNDER NO LOAD) HAS SPEEDS OF 4150-5600 RPM
2.) CURRENT: 110 MA. (MAX)
3.) CYCLE TIME (TO EJECT ONE PRODUCT) IS APPROX. 4 SECONDS AT 12VDC

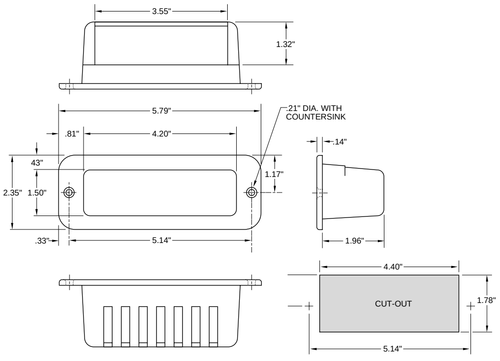
Part Number		Price per ea.	100+
49-0558-00	Vending Dispenser Motor	50.00	45.00
49-0429-0X	Prize Box, Plastic	1.10	.90

CABINET HANDLE



- Molded plastic construction
- Dual purpose, allows easy grip for moving cabinets and cabinet venting

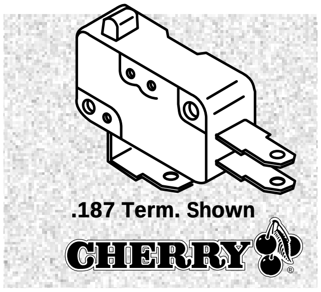
MOUNTING DIMENSIONS


3.55"
1.32"
5.79"
.21" DIA. WITH COUNTERSINK
.81"
4.20"
.14"
43"
1.17"
2.35"
1.50"
.33"
5.14"
1.96"
4.40"
CUT-OUT
1.78"
5.14"
PANEL MOUNTING

Part Number		Price per ea.	12+
49-0067-00	Cabinet Handle	1.95	1.75

MICROSWITCH

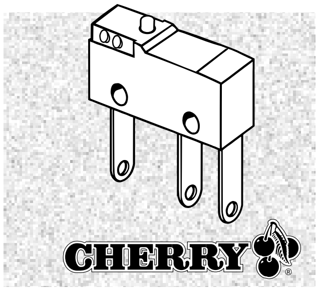
- For individual replacement of switches for Joysticks or Pushbuttons
- High CHERRY Quality switch
- D44 switch, 75 Gram (standard) actuating force
- .187" or .25" terminal available
- Switch color: White



Part Number		Price per ea.	100+
95-0733-01	Silver Contacts, .187 Term.	.75	.70
95-4111-00	Silver Contacts, .250 Term.	.75	.70
95-4114-00	Gold Contacts, .187 Term.	2.50	2.05

MICROSWITCH

- For individual replacement of switches for Pinball Switches, 4-Speed Shifters
- High CHERRY Quality switch
- DA3 .110 terminal, Gold Contact, 90 Gram (standard) actuating force
- Switch color: Black

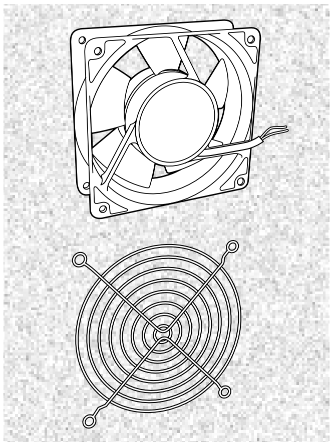


Part Number		Price per ea.	100+
95-4118-00	Replacement Microswitch .110 Term., Gold	2.50	2.05

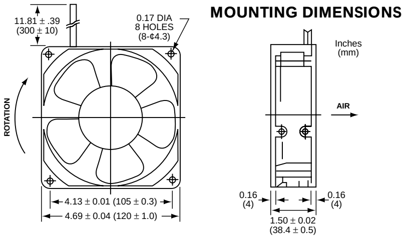
See page 55 for Zippy microswitch

COOLING FAN

- Top quality fan cools the electronics in your video game
- Industry standard size 4.69" square x 1.5" deep
- Low noise; impedance protected
- 115 AC fan easily mounts in most equipment
- UL Approved
- Flying leads
- Air flow 98-106 CFM (Cubic feet per minute)
- Cast aluminum frame
- 2,900 - 3,200 RPM



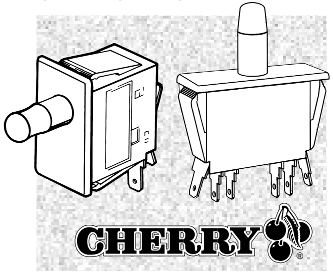
MOUNTING DIMENSIONS



Part Number		Price per ea.	25+
80-0006-10	Fan With Sealed Ball Bearings	21.50	19.50
80-0006-11	Fan With Sleeve Bearings	11.50	10.50
80-0006-20	Metal Guard for Cooling Fan	1.15	1.05

INTERLOCK SWITCHES

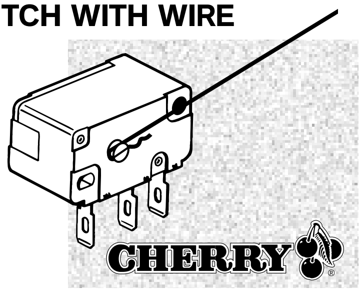
- E68-00A SPDT, 0.1 amp
- E68-01A SPST, 0.1 amp
- E69-00A SPDT, 10 amp
- E69-30A SPDT, 10 amp
- E79-30A DPDT, 10



Part Number		Price per ea.	25+
53-7031-00	Interlock Switch, E68-00A	2.95	2.75
53-7025-00	Interlock Switch, E68-01A	2.95	2.75
53-7010-00	Interlock Switch, E69-00A	5.95	5.65
53-7020-00	Interlock Switch, E69-30A	2.95	2.75
53-7030-00	Interlock Switch, E79-30A	4.30	4.00
53-7028-00	Interlock Switch, E79-40A	4.30	4.00
42-0578-00	Bracket for E68 & E69 Interlock Switches	1.20	1.10
42-1077-00	Bracket for E79 Interlock Switches	1.60	1.50

TRIP SWITCH WITH WIRE

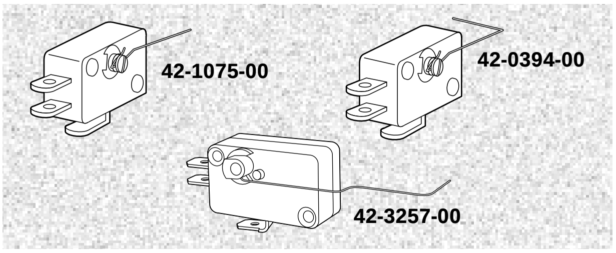
- .187 quick connect terminals
- High CHERRY quality



Part Number		Price per ea.	25+
42-0105-00	White Dot Coin Switch	3.75	3.05
42-0312-00	Blue Dot Coin Switch	4.15	3.75

COIN SWITCHES

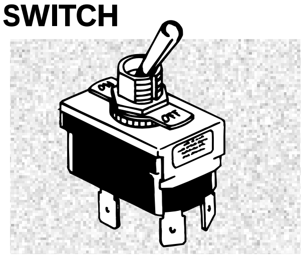
- Available with straight wire or custom bent to fit specific applications



Part Number		Price per ea.	100+
42-1075-00	Coin Switch Assembly w/straight wire	2.75	2.25
42-0394-00	Coin Switch Assembly w/Bend for Happ Coin Doors	2.90	2.40
42-3257-00	Coin Controls Coin Switch with Formed Actuator Ref #91-1116-16	3.60	3.19

ON/OFF SWITCH

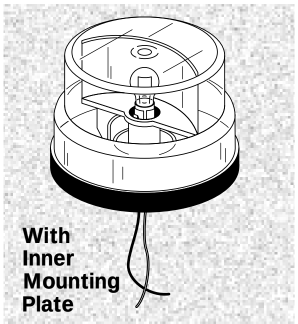
- 6A 125 VAC
- .250 terminal
- Double pole single throw
- UL/CSA listed

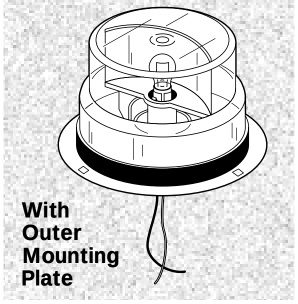


Part Number		Price per ea.	25+
49-0005-00	On/Off Switch	3.95	3.50

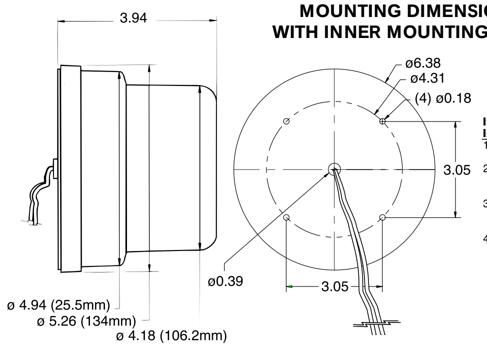
ROTARY BEACON LIGHT

- Bright 12 volt incandescent bayonet base bulb #1156
- 12 volt gear driven motor rotates reflecting shield around lamp
- New design with removable top cover provides easy bulb replacement
- T-10 Torx tamperproof screws used to retain dome for added security
- Suitable for upside down installation
- **Replacement bulbs available**


With Inner Mounting Plate


With Outer Mounting Plate

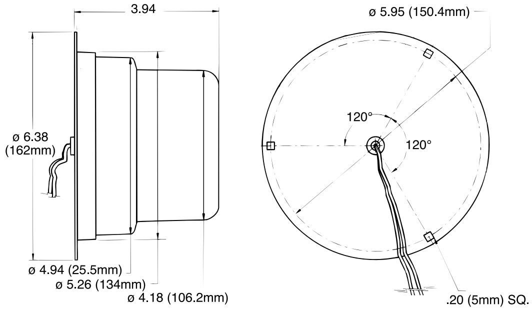
MOUNTING DIMENSIONS WITH INNER MOUNTING PLATE



INSTALLATION INSTRUCTIONS

1) Remove dome and/or Chrome Ring.
2) Insert 4 #8 screws through 4 holes in black plastic base
3) Secure screws with 4 #8 nuts on inside of cabinet
4) Re-attach dome and/ or chrome ring with (2) T-10 torx TP #6-32 screws provided

MOUNTING DIMENSIONS WITH OUTER MOUNTING PLATE



XX = Color
10 = Red
12 = Blue
13 = Green
15 = Yellow

M = Mounting Plate Type
I = Inner Mounting Plate
O = Outer Mounting Plate

95-0115- XX M R

R = Decorative Ring
_ = Without Decorative Chrome Ring
C = With Decorative Chrome Ring

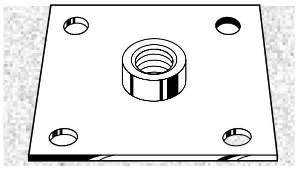
Part Number		Price per ea.	10+
95-0115-XXM	Rotary Beacon Light w/o Chrome Ring	40.00	33.00
95-0115-XXMC	Rotary Beacon Light w Chrome Ring	35.00	29.00
49-0069-00	Lamp #1156 for Rotary Beacon Light	1.20	-
95-0110-117	Replacement Chrome Ring for beacon light	5.00	4.00

Part Number		Price per ea.	6+
49-0452-00	T-10 Torx Tamperproof Wrench	8.00	7.00

LEG LEVELER MOUNTING PLATE WITH 1/2” PEM NUT

NEW

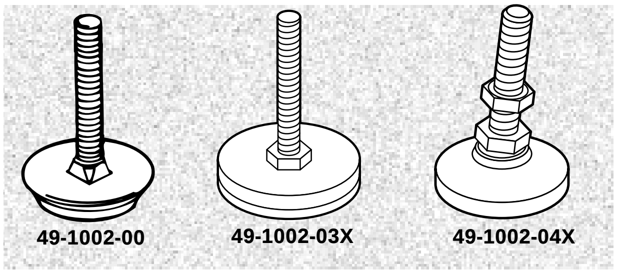
- With 1/2-13" Pem Nut for leg leveler
- 2.75” square
- 2” center mounting holes
- Mounting holes .31” diameter



Part Number		Price per ea.
49-1501-00	Leg Leveler Mounting Plate w/Pem Nut	6.75

LEG LEVELERS

- 1-1/2”, 2” or 4” thread length
- Other sizes available upon request

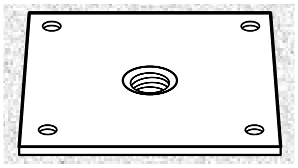


Leg Levelers

Part Number	Description	Thread	Thread Length	Load	Base Dia.	Price per 1-24	25+
49-1002-03	Leg Leveler w/o nut	3/8–16	1-1/2"	200lb.	1.75"	.77	.70
49-1002-00	Leg Leveler w/o nut	3/8–16	2"	200lb.	1.75"	.69	.65
49-1002-02	Leg Leveler w/nut	3/8–16	2"	200lb.	1.75"	.75	.70
49-1002-035	Leg leveler w/o nut	3/8–16	2"	250lb.	2.03"	2.25	2.05
49-1002-038	Leg leveler w/o nut	1/2–13	2"	500lb.	2.40"	2.40	2.15
49-1002-041	Leg leveler, Swivel w/nut	3/8–16	2"	3750lb.	1.25"	8.30	7.55
49-3042-00	Leg Leveler, Swivel w/nut	3/8–16	4"	3750lb.	1.25"	8.50	7.50
49-3043-00	Leg Leveler, Swivel w/nut	1/2–16	4"	3750lb.	1.25"	11.95	10.95
49-1002-042	Leg leveler, Swivel w/nut	1⁄2–13	2"	5000lb.	1.875"	11.80	10.75
49-1002-01	Leg Lever Nut	3/8–16	—	—	—	.07	.06
49-1002-04	T-Nut	3/8	—	—	—	.20	.18

LEG LEVELER MOUNTING PLATE

- 3/8" thread
- Steel plated



Part Number		Price per ea.	12+
49-1500-00	Leg Leveler Mounting Plate	2.50	2.00

Visit Our Web Site:

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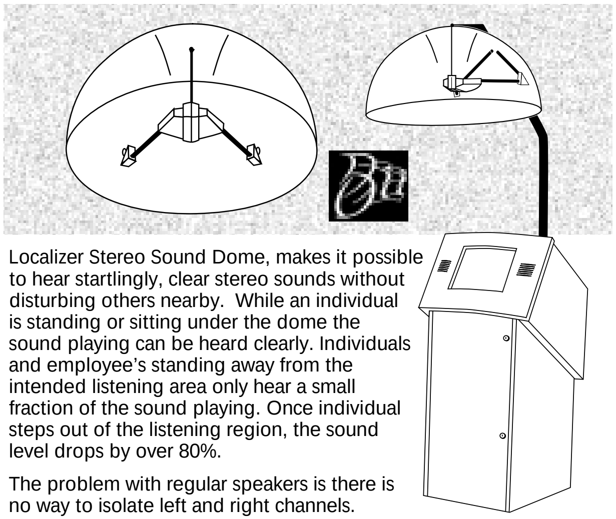
Localizer Stereo Sound Dome



Localizer Stereo Sound Dome, makes it possible to hear startlingly, clear stereo sounds without disturbing others nearby. While an individual is standing or sitting under the dome the sound playing can be heard clearly. Individuals and employee's standing away from the intended listening area only hear a small fraction of the sound playing. Once individual steps out of the listening region, the sound level drops by over 80%.

The problem with regular speakers is there is no way to isolate left and right channels. Placing many speakers next to each other result in one computer (listener) competing to hear his/her sounds with the sounds from the other. Localizer allows many audio sources to co-exist in a small area without creating an unpleasant atmosphere. Localizer units can be set up at intervals of three feet, allowing individuals the ability to hear sounds perfectly without disturbing the person listening to another audio track just an arms length away.

Utilizes patented technology to simultaneously project both channels of a stereo signal independently into a listener's left and right ears, allowing an individual to appreciate the stereo effects within a recording. In contrast, standard speakers disperse sound in all directions blending the left and right channels, which were recorded to be heard by each ear independently.

Localizer is designed to provide solutions for environments where localized stereo sound is desired. Music stores, kiosks, and point of purchase displays are just a few of the type of applications.

- Makes it possible to hear startlingly, clear stereo sounds without disturbing others nearby
- Utilizes patented technology
- 32" Stereo sound dome unit 16" height
- Can be mounted to a ceiling, flush mounted into a drop ceiling, hung from a truss, or affixed directly to a kiosk with the optional custom pole mount structure
- Double & Quad speaker version also available
- Optional Virtuoso TM Amplifier designed especially for use with the Localizer and incorporates special active equalization. This amplifier provides high quality audio and is recommended to optimize the Localizer performance

SPECIFICATIONS: LOCALIZER STEREO SOUND DOME

- Amplifier Power Requirement: Minimum: 1 Watt per Channel Maximum: 25 Watts per Channel
- Speaker Impedance: 6 Ohms
- Dimensions of Focused Sound Field: 12in. x 12in. x 30in. (.3m x .3m x .8m)
- Isolation: 14dB SPL drop two feet from center of focused field
- Stereo Separation: 10 dB
- Range of Mounting Heights: 7.5ft. - 9ft. (2.3m - 2.7m) [MEASURING FROM

THE BOTTOM OF THE DOME

- Dimensions: 32in. Diameter Hemisphere
- 32in. x 32in. x 16in. (.81m x .81m x .41m)
- Weight: 15 lbs (7 kg)

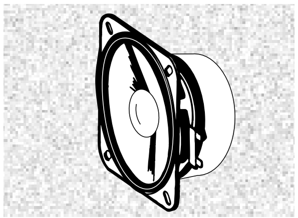
VIRTUOSO AMPLIFIER/EQUALIZER

- Nominal Audio Input Level: 1Vac = 0dB 3V max
- Nominal Output Power and Impedance: 10 watts continuous per channel (25 peak Watts) into 4 Ohms
- Active Equalization: 150 Hz-20K Hz +/- 2.0dB
- Used with the Virtual Audio Imager TM, provides frequency response from 150-20K +/-2dB
- Distortion: .01% THD up to 10 Watts
- Connections: Audio Input: 2 RCA low level input (left and right)
- Speaker Output: Removable screw terminal block for speaker connection
- Dimensions: 1.5 in. x 4.125in. x 6.5in.
- Weight: 1lb (without wall pack power supply)
- Power: Comes with external wall pack (120V or 220V)

Part Number	Description	Price
49-5020-01	Single Localizer Stereo Sound Dome	999.00
49-5019-00	Virtuoso Amplifier/Equalizer	199.00

4" SHIELDED SPEAKER

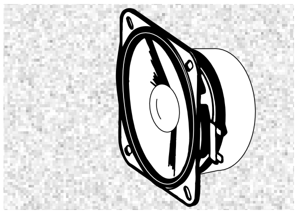
- Used in video game cabinets
- This speaker has a metal shield surrounding the magnet to prevent any interference with the monitor
- 6 oz., 8 Ohm, 12 Watt Max.



Part Number		Price per ea.	25+
49-0228-00	4" Shielded Speaker	8.45	7.60

5" SPEAKER

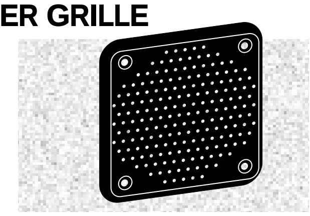
- 5" speaker with 4 mounting holes
- 8 Ohms
- .205 & .250 terminals



Part Number		Price per ea.	25+
50-9003-205	5 Watts, 3 oz. Magnet	3.50	3.00
50-9004-00	12 Watts, 6 oz. Magnet	3.75	3.50

4" SPEAKER GRILLE

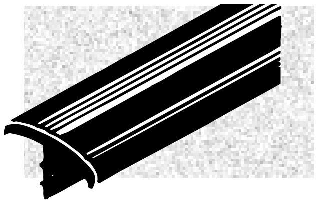
- Vinyl-covered metal
- Color: Black



Part Number		Price per ea.
49-0127-00	4" Speaker Grille	4.38

T-MOLDING

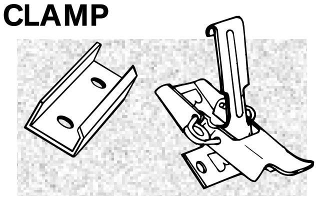
- Use for repair or updating your equipment
- Fits standard edge groove in 3/4" or 5/8" plywood or particle board
- Available in red or black



Part Number		Price per Ft .	100+ Ft.
49-0539-100	Leather Texture for 3/4" Wood	.35	.30
49-0999-00	T-Molding for 3/4" Wood	.30	.25
49-0539-00	Leather Texture for 3/4" Wood	.35	.30
49-0998-00	T-Molding for 5/8" Wood	.30	.25

PANEL CLAMP

- Universal strike – mounts flat or at right angle
- Wire spring for easy latching



Part Number		Price per ea.	100+
49-0059-00	Universal Panel Clamp	4.00	3.50

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MINIMUM ORDER $25.00
VISA MasterCard AMERICAN EXPRESS Cards

ORDER FORM

OFFICE USE ONLY: **REP NO.**__________ ☐ **P.P.** ☐ **COL.** **MISC.**__________
ORDER NUMBER __________ S.D. __________ I.H.D. __________

BILL TO: __________ DATE: __________

__________ YOUR P.O. NO.

SHIP TO: __________ Terms: __________
F.O.B. Elk Grove, IL

____
SALES TAX NUMBER
Include copy of Tax Certificate

HAPP CUSTOMER NUMBER Phone No. (   ) __________ FAX No. (   ) __________

SHIP VIA: **U.P.S.** ☐ RED ☐ BLUE OTHER: __________
☐ GROUND ☐ 3-Day Select TRUCK: __________

MAY WE BACK ORDER? ☐ **YES** ☐ **NO**

LINE	**QUANTITY**	**PART NUMBER**	**DESCRIPTION**	**UNIT PRICE**	**AMOUNT**
1					
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MEMO:

Sub-Total		
State Sales Tax CA and IL only		
Shipping Charges		
TOTAL		

NOTE: Please check our catalog for other useful items you may require to bring your order up to the $25.00 minimum invoice. All orders are subject to Chicago Office approval. **Return of goods must be authorized.** Prices are subject to change without prior notice.

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Toll Free Fax: 800-593-HAPP (4277)
Phone: (847)593-6130 Fax: (847)593-6137

☐ VISA ☐ MasterCard ☐ AMERICAN EXPRESS Cards Exp. Date

THANK YOU FOR YOUR ORDER.

X __________
CARD HOLDER SIGNATURE / ORDER AUTHORIZED BY

If you do not have an account with HAPP CONTROLS, please refer to Credit Application included with this catalog. Credit card orders must have cardholders signature. Thank you for your cooperation!

CREDIT APPLICATION

HAPP CONTROLS

106 GARLISCH DRIVE • ELK GROVE, IL 60007 • PHONE: (847) 593-6130 • ACCOUNTING DEPT. FAX: (847) 981-2902

If you do not have an account with HAPP CONTROLS and a NET 30 OPEN ACCOUNT is desired, complete this credit application and submit for our processing along with your order. Or fax directly to our Accounting Department at (847) 981-2902.

REQUEST FOR NET 30 OPEN ACCOUNT

DATE:__________________

☐ NEW CUSTOMER ☐ PRESENT CUSTOMER CUSTOMER NO. ____

IF TAX EXEMPT PROVIDE SALES TAX NUMBER ____

BILL TO (Attention)	**SHIP TO (Attention)**
NAME: ____	NAME: ____
____	____
____	____
____	____
PHONE: ( ) ______________________________ Area	Contact Person(s): ______________________________
FAX: ( ) ______________________________ Area	____

F.E.I.N. or SOCIAL SECURITY NO. ______________________

BANK NAME: ____

ADDRESS: ____ CITY ___________________ STATE ________ ZIP__________
(Exact address or closest intersecting street)

NAME OF BANK OFFICER TO CONTACT:____ PHONE: (   ) _______________ Area

CUSTOMER PERMISSION FOR BANK TO GIVE REFERENCES TO HAPP CONTROLS:

SIGNED: ____	BUSINESS CHECKING ACCOUNT NUMBER ______________________________
TITLE: ____	HOW LONG AT THIS LOCATION? ______________________________
BANK FAX NO.: ____________________________________	

☐ CORPORATION ☐ PARTNERSHIP ☐ PROPRIETORSHIP ☐ OTHER, EXPLAIN _______________

NAME OF OFFICER, PARTNER, OR OWNER: ______________________________________

TRADE REFERENCES (U.S. ONLY)

COMPANY NAME: ____	ADDRESS: ____ (INCLUDE CITY & STATE)
ACC NO. ____	FAX: ______________________ PHONE:____________________
COMPANY NAME: ____	ADDRESS: ____ (INCLUDE CITY & STATE)
ACC NO. ____	FAX: ______________________ PHONE:____________________
COMPANY NAME: ____	ADDRESS: ____ (INCLUDE CITY & STATE)
ACC NO. ____	FAX: ______________________ PHONE:____________________
COMPANY NAME: ____	ADDRESS: ____ (INCLUDE CITY & STATE)
ACC NO. ____	FAX: ______________________ PHONE:____________________

YOUR NAME (Please Print) _________________________

YOUR SIGNATURE ________________________________ TITLE:____________________________ DATE _______________

Please allow 2 weeks for processing of Credit Application.

APPROVED NET 30 YES ☐ NO ☐ OFFICE USE ONLY
DATE: ____________________________ CREDIT MANAGER: ____

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MINIMUM ORDER $25.00
Cards

ORDER FORM

OFFICE USE ONLY: **REP NO.**________ ☐ **P.P.** ☐ **COL.** **MISC.**________

ORDER NUMBER ________ S.D. ________ I.H.D. ________

BILL TO: ________ DATE: ________

____

YOUR P.O. NO. ________

SHIP TO: ________ Terms: ________

F.O.B. Elk Grove, IL

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SALES TAX NUMBER
Include copy of Tax Certificate

HAPP CUSTOMER NUMBER ☐☐☐☐☐☐ Phone No. ( ) ________ FAX No. ( ) ________

SHIP VIA: **U.P.S.** ☐ RED ☐ BLUE ☐ GROUND ☐ 3-Day Select OTHER: ________ TRUCK: ________

MAY WE BACK ORDER? ☐ **YES** ☐ **NO**

LINE	QUANTITY	PART NUMBER	DESCRIPTION	UNIT PRICE	AMOUNT
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State Sales Tax CA and IL only		
Shipping Charges		
TOTAL		

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Toll Free Fax: **800-593-HAPP (4277)**
Phone: **(847)593-6130** **Fax:** **(847)593-6137**

☐ ☐ ☐ Cards Exp. Date ☐☐ ☐☐

☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

THANK YOU FOR YOUR ORDER.

X ________

CARD HOLDER SIGNATURE / ORDER AUTHORIZED BY

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NOTES: